XR-U300RDS/U301RDS /U400RDS/U401RDS

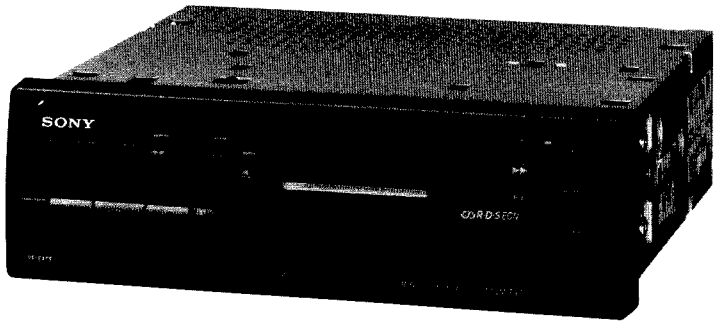
SERVICE MANUAL

AEP Model

XR-U300RDS/U301RDS/U400RDS/U401RDS

UK Model

XR-U301RDS/U401RDS



Model Name Using Similar Mechanism		XR-U440RDS/U441RDS
Tape Transport Mechanism Type	U300RDS/U301RDS	MG-38ZS5-34
	U400RDS/U401RDS	MG-38ZS3-34

SPECIFICATIONS

Cassette player section

Tape track 4-track 2-channel stereo
Wow and flutter 0,13% (WRMS)
Frequency response 30 – 18,000 Hz
Signal-to-noise ratio
XR-U400RDS/U401RDS

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	66 dB	58 dB
TYPE I	63 dB	55 dB

XR-U300RDS/U301RDS
55 dB

Tuner section

FM

Tuning range 87.5 – 108.0 MHz
Antenna terminal External antenna connector
Intermediate frequency 10.7 MHz
Usable sensitivity 12 dBf
Selectivity 75 dB at 400 kHz
Signal-to-noise ratio 65 dB (stereo), 70 dB (mono)
Harmonic distortion at 1 kHz
0.5% (stereo), 0.3% (mono)
Separation 35 dB at 1 kHz
Frequency response 30 – 15,000 Hz
Capture ratio 2 dB

AM (MW/LW)

Tuning range
XR-U400RDS/U300RDS
531 – 1,602 kHz
XR-U401RDS/U301RDS
MW: 531 – 1,602 kHz
LW: 153 – 281 kHz
Antenna terminal External antenna connector
Intermediate frequency 450 kHz
Sensitivity
XR-U400RDS/U300RDS
30 µV
XR-U401RDS/U301RDS
MW: 30 µV
LW: 50 µV

Power amplifier section

Outputs Speaker outputs (sure seal connectors)
Speaker impedance 4 – 8 ohms
Maximum power output 20 W × 4 (at 4 ohms)

General

Output lead Power antenna relay control lead
Power amplifier control lead
Tone controls Bass ±8 dB at 100 Hz
Treble ±8 dB at 10 kHz
Power requirements 12 V DC car battery (negative ground)
Dimensions Approx. 186 × 57 × 170 mm (w/h/d) not incl. projecting parts and controls
Mounting dimension Approx. 182 × 53 × 153 mm (w/h/d) not incl. projecting parts and controls
Mass Approx. 1.3 kg
Supplied accessories Mounting hardware (1 set)
Power connecting cord (1)
Front panel case (1)

Design and specifications subject to change without notice.

FM/AM CASSETTE CAR STEREO

XR-U300RDS

FM/MW/LW CASSETTE CAR STEREO

XR-U301RDS/U401RDS

SONY®

MICROFILM

MC-Service

This section is extracted from instruction manual.

Features

This instruction manual covers the XR-U400RDS/U401RDS/U300RDS/U301RDS. The main differences between the four are as follows:

	XR-U400 RDS	XR-U401 RDS	XR-U300 RDS	XR-U301 RDS
Tuner band	FM/AM	FM/MW/ LW	FM/AM	FM/MW/ LW
Dolby B NR system	provided	provided	not provided	not provided
MTL button	provided	provided	not provided	not provided
AMS function	provided	provided	not provided	not provided

When differences occur, they are clearly described in the corresponding sections.

The illustrations of the front panel in this manual are of the XR-U400RDS.

General

- **Detachable-front panel** enables you to take the front panel away with you when you leave your car. (page 11)
- **Caution alarm** will be activated if you turn off the ignition key without removing the front panel from the unit.
- Switchable **two color illumination (amber and green)** (XR-U400RDS/U401RDS only). (page 9)
- Provided with a **digital 24-hour clock.** (page 12)
- Line outputs for connecting an optional power amplifier.
- **Telephone-mute function** for decreasing the volume automatically with a telephone call.
- **Built-in power amplifer (max. output: 4ch x 20 W)** enables you to enjoy a 4-speaker system.

Tuner section

- Up to 18 stations can be preset: 12 stations on FM and 6 stations on AM (XR-U400RDS/ U300RDS) or MW (XR-U401RDS/U301RDS).
- **BTM (Best Tuning Memory) function** automatically searches and stores the stations with the strongest signals on the preset number buttons in order of frequency. (page 24)
- The information services of **FM RDS station** can be received. (page 27)
- Compatible with **the RDS features** such as **EON (Enhanced Other Networks), AF (Alternative Frequency)** and **TA (Traffic Announcement).** (page 28)

Cassette player section

- **Dolby B NR*** system reduces hiss noise during tape playback (XR-U400RDS/ U401RDS only). (page 9)
- **ATA (Automatic Tuner Activation)** for automatically turning on the tuner while fast-forwarding or rewinding a tape. (page 13)

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.

CD changer control section (when the optional Sony CD changers are connected)

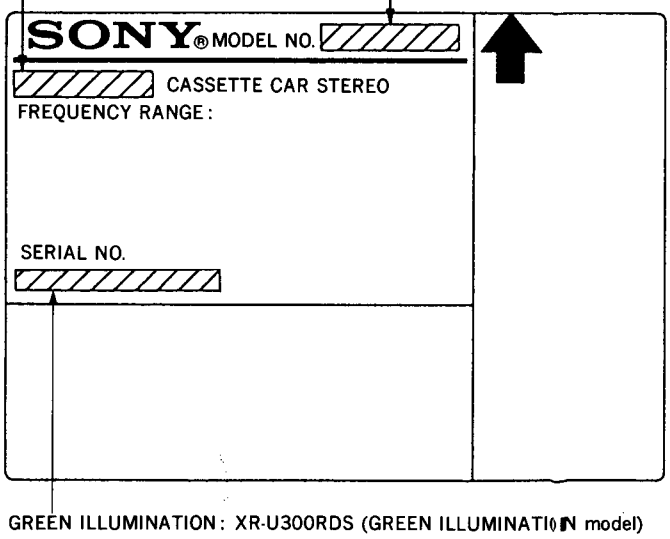
- **Several Sony CD changers (not supplied) can be connected and controlled** by the use of the Sony source selector(s) (not supplied).
- **Custom file function** for displaying the title of each disc and setting the PLAY/SKIP mode on each track. (page 21)
- **Shuffle play function** for playing tracks in random order. (page 15)
- **Intro scan function** for playing the first 10 seconds of each track. (page 17)
- **Repeat play function** for playing a currently playing track repeatedly. (page 16)

MODEL IDENTIFICATION

—Model Number label—

XR-U300RDS: AEP, German model
XR-U301RDS: UK, France model
XR-U400RDS: AEP, German model
XR-U401RDS: UK, France model

XR-U300RDS/U400RDS: FM/AM
XR-U301RDS/U401RDS: FM/MW/LW



GREEN ILLUMINATION: XR-U300RDS (GREEN ILLUMINATION model)

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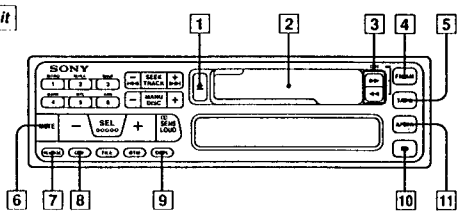
MC-Service

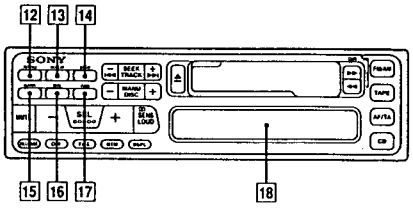
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location and Function of Controls

Main Unit





Refer to the pages in ● for details.

[1] **≜ (eject) button**

[2] **Cassette insertion door**

[3] **◄◄/►► (fast winding)/DIR (tape transport direction change) buttons**

[4] **FM/AM (radio on/band select) button (XR-U400RDS, XR-U300RDS)**
Each time the button is pressed, the band changes in order of:
FM1 → FM2 → AM → FM1.
FM/MW/LW (radio on/band select) button (XR-U401RDS, XR-U301RDS)
Each time the button is pressed, the band changes in order of:
FM1 → FM2 → MW → LW → FM1.

[5] **TAPE (tape playback) button**

[6] **MUTE button**
Press to mute the sound momentarily. Press again to restore the same volume level. This button is also canceled in the following cases:
— when the + side of the [−/+] button or the OFF button is pressed.
— when ejecting a cassette by pressing the ≜ button during tape playback.
— when the ignition key of your car has been turned to the OFF position for more than eight seconds.

[7] **RELEASE (front panel release) button ⓫**

[8] **OFF button**
Press to turn off the unit.

[9] **DSPL (display mode change/time set) button ⓬**
Each time the button is pressed, the display on the display window changes as follows:

During tape playback	Clock (→ Frequency*1)
During CD play	Elapsed playback time → Disc title*2 → Clock
During radio reception*3	Frequency → Clock

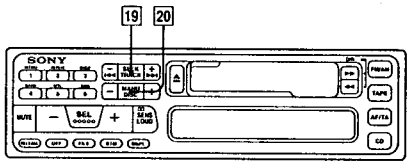
*1 While the ATA function is activated.
*2 If the title has not being registered, "- - - - - - - -" indication will appear on the display window.
*3 See page 30 about the display modes when the RDS function is in operation.

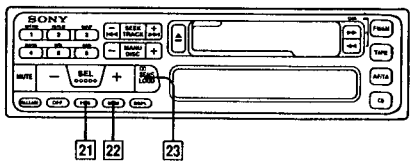
[10] **CD (disc play/CD changer select) button ⓮**

[11] **AF/TA (alternative frequency/traffic announcement) button**
Each time the button is pressed, the function changes in order of:
AF → TA → AF/TA → none → AF.

	During tape playback	During CD play	During radio reception
[12] **INTRO button** (INTRO 1)	—	**Intro scan ⓱**	**Preset number buttons ㉓㉘**
[13] **REPEAT button** (REPEAT 2)	—	**Repeat play ⓰**	
[14] **SHUF button** (SHUF 3)	—	**Shuffle play ⓯**	
[15] **BANK button** (BANK 4)	—	**Bank play ㉗**	
[16] **MTL (metal/CrO2) button (XR-U400RDS/ U401RDS only)** (MTL 5)	Press when listening to a CrO_2 (TYPE II) or metal (TYPE IV) tape. To cancel, press it once more.	—	
[17] **AMS button (XR-U400RDS/ U401RDS only)** (AMS 6)	**AMS (Automatic Music Sensor) function** After pressing this button, Press the ◄◄ button: To locate the beginning of the currently playing track. Press the ►► button: To locate the beginning of the next track. (When the side of the cassette which is facing downwards is played, these buttons function conversely.)	—	

[18] **Display window**





	During tape playback	During CD play	During radio reception
[19] **SEEK/TRACK button** (− SEEK TRACK +)	—	[−]: To locate the beginning of the currently playing track. [+]: To locate the beginning of the next track. Press repeatedly to locate the previous or succeeding tracks.	**Automatic tuning ㉘**
[20] **MANU/DISC button** (− MANU DISC +)	—	**Disc change** [−]: To locate the previous disc number. [+]: To locate the disc numbers ahead. **Manual search** [−]: To fast-reverse [+]: To fast-forward Press and hold either side of the button.	**Manual tuning ㉙**

[21] **FILE (custom file mode select • set/list up) button**
Each time the button is pressed, the mode changes as follows:
—►: Press the button for more than two seconds.
- -►: Press the button lightly.

Normal CD play
↓
Name edit mode
↓
PLAY/SKIP edit mode
↓
Cancel (Normal CD play)

[22] **BTM (Best Tuning Memory/Memory Scan) button**

[23] **DD*/SENS/LOUD (Dolby NR*/sensitivity/ loudness) button ⓭㉒**
Press for more than two seconds to reinforce the bass and treble especially when listening at a low volume level. To cancel this mode, press it again for more than two seconds.

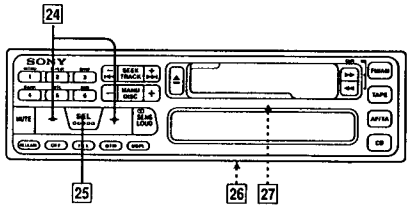
• XR-U400RDS/U401RDS only

Changing the illumination color (XR-U400RDS/U401RDS only)

Press the (1 INTRO) button while pressing the (5 SEL DISC) button.
You can choose the color between amber and green.

Muting the beep tone

Press the (6 AMS) button while pressing the (5 SEL DISC) button. To obtain the beep tone again, press these buttons once more.



24 [−/+] **(volume/bass/treble/balance/fader control) button**
Press to adjust each mode.

25 **SEL (control mode select) button**
Press to select the desired control mode: BAS (bass), TRE (treble), BAL (balance), FAD (fader) or VOL (volume).

Display window	Control mode	[−/+] Press − Side	[−/+] Press + Side
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speakers' volume	To decrease the left-speakers' volume
FAD	Fader control	To decrease the rear-speakers' volume	To decrease the front-speakers' volume
VOL	Volume control	For less volume	For more volume

The [−/+] button normally function as the volume control. Adjust the level within three seconds after selecting the desired control mode with the SEL button. Otherwise, the mode will go back to the volume control mode.

26 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT Switch" in the installation/connections manual.

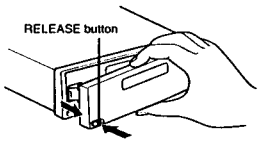
27 **Reset button (located on the front side of the unit hidden by the front panel)**
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

Detaching and Attaching the Front Panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

Detaching the Front Panel

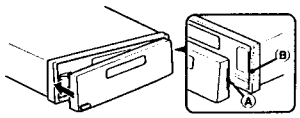
Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel and detach the panel by pulling it towards you as illustrated.



Be sure not to drop the panel when detaching it from the unit.

Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.



Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will be activated and a beep tone will be heard for a few seconds (only when the POWER SELECT switch is set to the ON position).

Notes
- Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.
- Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.
- When you carry the front panel with you, put it in the supplied front panel case.
- Do not press hard or give excessive pressure to the display window of the front panel.
- Before removing the front panel, be sure to turn the power off. However, if you press the RELEASE button to detach the panel while the unit is still turned on, the power will be automatically turned off in order to protect the speakers from being damaged.
- Do not expose the front panel to direct sunlight, heat sources such as hot air ducts or leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.

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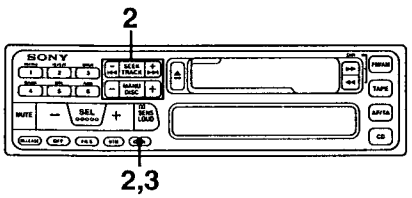
Setting the Clock



The clock has a 24-hour digital indication.

For example, to set it to 10:08.

1 **Turn the ignition key to the ON position.**

2 **Press the DSPL button for more than two seconds.**

DSPL → 0:00

While holding down the DSPL button:

Press [−/+] to set the hour digits.
(to go back) (to go forward)

Press [−/+] to set the minute digits.
(to go back) (to go forward)

3 **The clock starts activating when you take your finger off the DSPL button.**

10:08

Note
If the POWER SELECT switch on the bottom of the unit is set to the OFF position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or start CD play or tape playback.

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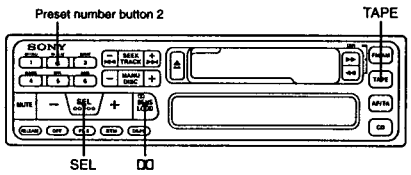
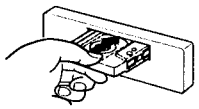
Listening to Tape Playback



Insert a cassette to start playback.



If a cassette is already inserted

TAPE

Tape transport direction indication

⊖ TAPE

The side facing up is being played.

⊖ TAPE

The side facing down is being played.

Listening to a tape recorded in the Dolby B NR system (XR-U400RDS/U401RDS only)
Press the DOLBY NR button lightly to get the "DOLBY NR" indication.
To cancel, press it lightly once more.

Turning on the Radio While the Tape is Being Fast-wound — ATA Function

Press the preset number button 2 while pressing the SEL button.

2 (REPEAT) + SEL (GOOOO)

The tuner turns on automatically when you press the ◄◄ or ►► button during tape playback.
To cancel, press the preset number button 2 while pressing the SEL button.

Notes
- The ATA will not function while the unit is in the AMS mode.
- The car antenna will automatically be extended while the ATA is activated. (Only the cars equipped with power antennas)

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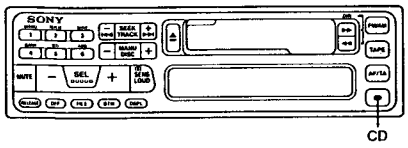
Cassette Player Operation

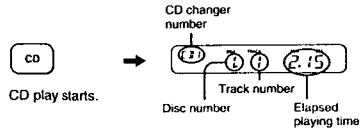
MC-Service

Listening to CD Play

(With the Optional CD Changer(s) Connected)



Press the CD button.



Listening to the Discs in Another CD Changer

(when two or more CD changers are connected)

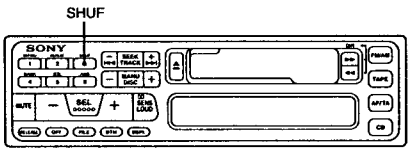
Press the CD button during CD play.

CD

The CD changer number will change.

If the unit is set in the normal playing mode, after the end of a disc, the disc with the next number shown will be automatically played. If two or more CD changers are connected, after the end of the last disc, the first disc in the CD changer with the next number shown will be played. The order of the CD play can be rearranged by changing the playing modes. For details, see "Playing in Other Modes" (page 15).

Playing in Other Modes



Playing the Discs Randomly

— Shuffle Play Functions

Playing the tracks on the currently selected disc randomly — Disc shuffle play

Press the 3 button lightly to get the "SHUF 1" indication during CD play.

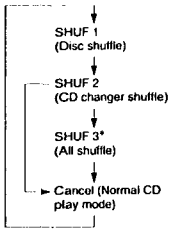
Playing every track on every disc in the currently selected CD changer randomly — CD changer shuffle play

Press the 3 button lightly to get the "SHUF 2" indication during CD play.

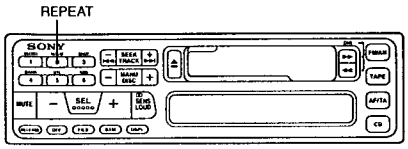
Playing every track on every disc in all the CD changers connected randomly — All shuffle play (when two or more CD changers are connected)

Press the 3 button lightly to get the "SHUF 3" indication during CD play.

The function of the SHUF button changes cyclically as follows:



* All-shuffle play (SHUF 3) mode functions only when two or more changers are connected to the unit. When only one changer is connected, the "SHUF 3" indication will not be displayed. In this case, if you press the SHUF button again while the "SHUF 2" indication is being displayed, the shuffle play will be canceled.



Playing a Disc Repeatedly

— Repeat Play Functions

Playing the currently selected track repeatedly — Track repeat

Press the 1 button lightly to get the "REP 1" indication during CD play.

Playing the currently selected disc repeatedly — Disc repeat

Press the 2 button lightly to get the "REP 2" indication during CD play.

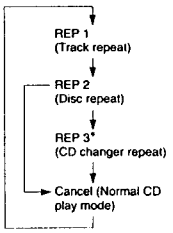
When the last track on the currently selected disc is over, the CD play is repeated from the beginning of that disc.

Playing the discs in the currently selected CD changer repeatedly — CD changer repeat (when two or more CD changers are connected)

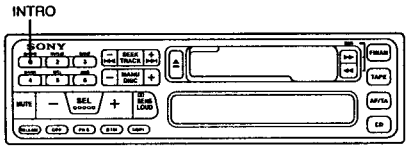
Press the 2 button lightly to get the "REP 3" indication during CD play.

When the last disc in the CD changer has been played, the CD play will be repeated from the first disc in the currently selected CD changer.

The function of the REPEAT button changes cyclically as follows:



* CD changer repeat (REP 3) mode functions only when two or more CD changers are connected to the unit. When only one CD changer is connected, the "REP 3" indication will not be displayed. In this case, if you press the REPEAT button again while the "REP 2" indication is being displayed, the repeat mode will be canceled.



Listening to the First 10 Seconds of Each Track — *Intro Scan Function*

Press the INTRO button lightly during CD play.

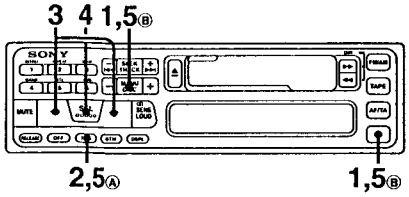
The first 10 seconds of all the tracks on the currently selected disc are played in order. After the first disc is played with the intro scan function, the next disc is played. When two or more CD changers are connected, after the last disc is played, CD play moves on to the next CD changer.

When you find the desired track, press the INTRO button once more.
The unit returns to the normal CD play mode.

If the INTRO button is pressed during shuffle play, the first 10 seconds of every track will be played randomly.

Displaying the Title of Each Disc

— Disc Memo Function



You can put a title of your own choice onto a disc (one title per disc). The title can be displayed on the display window while the disc is being located and played.

Putting Your Personalized Titles onto the Discs

1 **Play the disc that you wish to title.**

CD — MANU DISC

2 **Press the FILE button for more than two seconds to enter the name edit mode.**

FILE ➡

Name edit mode

3 **Press either side of the [-_/+] button to select the desired characters.**

Each time you press either side of the [-_/+] button, characters appear in the following order:

➡ _ → A → B → C → ... → X → Y → Z → 0 → 1 → 2 → 3 → ...

➡ _ → \ → (→) → \ → / → ! → - → + → 9 → ...

4 **Press the SEL button after locating the desired character.**

SEL ➡

The flashing part moves to the next space on the right. Repeat steps 3 and 4 to enter the entire titles. Up to eight characters can be used per disc.

5 **Ⓐ To return to the normal CD play mode**

FILE

Press the FILE button for more than two seconds.

Ⓑ To continue to put titles onto the discs

CD or — MANU DISC +

Changing a title

Play the disc whose title you wish to change and repeat steps 2 to 5.

Erasing a title

1 **Select the CD changer and play any disc.**
2 **Press the FILE button for more than two seconds to enter the name edit mode.**
3 **Press the SEL button while pressing the preset number button 5.**
4 **Press either side of the [-_/+] button to select the title that you wish to erase.**
5 **Press the SEL button for more than two seconds.**
Repeat step 4 and step 5 if necessary.
6 **Press the FILE button for more than two seconds.**
Now the title and the PLAY/SKIP settings are erased.
The unit returns to the normal CD play mode.

Notes
- If you press the SEL button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select "_" (under-bar).

If you press the CD button, the next CD changer will be selected. (when two or more CD changers are connected)

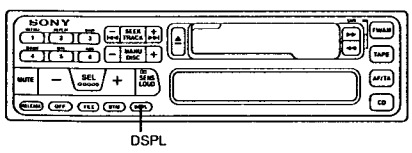
When you change the title, the PLAY/SKIP settings of the bank function will not be erased at the same time.

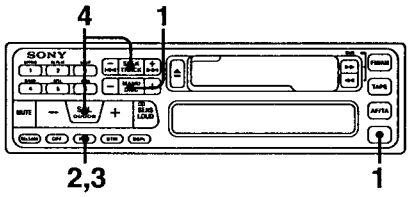
If you erase the title, the PLAY/SKIP settings of the bank function will be erased as well.

The alternative method to erase a title
You can erase a title by selecting eight "_"s (under-bars) as described in step 3 of "Putting Your Personalized Titles onto the Discs" (page 18).

Playing Selected Tracks on a Disc

— Bank Function





Displaying the Title

Press the DSPL button.

DSPL ➡ SCHUBERT

Title display modes

While loading the discs, whatever the display mode the unit is in, the indication on the display window automatically changes as follows:

The title of the disc (two seconds) → Disc and track number (two seconds) → Currently selected display mode (two seconds)

Custom file function

You can register the customized titles and the PLAY/SKIP settings on up to 110 discs* per CD changer (custom file function). These settings are stored in the memory of the CD changer. Therefore, even if you take a custom-filed disc out of the CD changer, you can still use the same custom file function the next time you play that disc in the same CD changer. Furthermore, if your system has several CD changers connected, you can play that disc in another CD changer and still use the same custom file function, provided that the CD changers are inter-connected with the UNILINK cables.

* If you try to register more than 110 discs, the unit will display the "FULL" indication and will not accept the command for custom-filing. In this case, you will have to erase the memory of other discs before you enter the new ones (page 19).

Note
The registered titles of the discs may not come on the display window immediately while it is being loaded inside the CD changer.

Setting the Play and Skip Modes on the Discs

1 **Play the disc to which you wish to set these modes.**

CD — MANU DISC +

2 **Press the FILE button for more than two seconds and put the titles onto the discs.**

FILE

See page 18 for details about putting on a title. If the title has already been registered, go to step 3.

3 **Press the FILE button lightly to enter the PLAY/SKIP edit mode.**

FILE ➡ 5 1 PLAY

PLAY/SKIP edit mode

4 **Press either side of the TRACK button to select the track number you wish to skip and press the SEL button.**

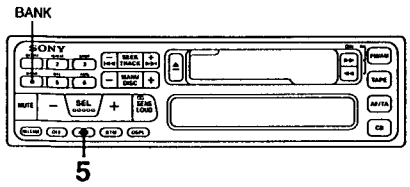
— SEEK TRACK + ➡ 5 3 SKIP

SEL

The indication changes from "PLAY" to "SKIP". If you wish to return to "PLAY", press the SEL button once more.

Repeat the operation in this step to set either the "PLAY" or "SKIP" mode on all the tracks.

Notes
- When the title is not registered, you cannot enter the PLAY/SKIP edit mode even if you press the FILE button.
- You can only set the "SKIP" mode onto up to 24 tracks. If a disc has more than 24 tracks, you will not be able to set the "SKIP" mode on the tracks after the 24th track.
- You cannot set the "SKIP" mode onto all of the tracks on a disc.



5 **Press the FILE button for more than two seconds.**

FILE

The unit returns to the normal CD play mode.

Playing with the Bank Function

Press the BANK button lightly during CD play.

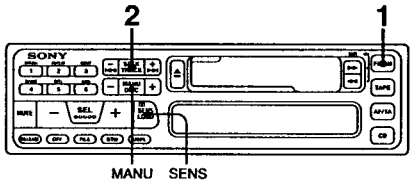
BANK 4 ➡

The "BANK" indication appears on the display window. The unit starts playing the tracks with "PLAY" settings which have been set by the PLAY/SKIP edit mode.
To return to the normal CD play mode, press the BANK button once more.

When the BANK button is pressed while pressing the SEL button, the unit starts playing the tracks with "SKIP" settings which have been set by the PLAY/SKIP edit mode.
To go back to the normal playing mode, press the BANK button again while pressing the SEL button.

Even when you play a disc with the PLAY/SKIP settings, if the "BANK" indication has not appeared on the display window, the disc will not be played according to the settings.

Tuning in a Station



Searching for the Stations Automatically
— Automatic Tuning

1 **Select the desired band.**

FM/AM — XR-U400RDS, XR-U300RDS

FM MW/LW — XR-U401RDS, XR-U301RDS

2 **Press either side of the SEEK button.**

SEEK TRACK

For lower frequencies — For higher frequencies

The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

When an FM stereo program with a sufficient signal strength is tuned in

FM1 ST 87.9

The "ST" indication will appear.

Avoiding the automatic tuning from stopping on stations too frequently (Local Seek Mode)
Press the SENS button lightly to get the "LCL" indication. Only the stations with relatively strong signals can be tuned in. The local seek mode functions only when the Automatic Tuning is in operation.

If FM stereo broadcasting is difficult to receive (Monaural Mode)
Press the SENS button lightly to get the "MONO" indication. The sound will improve, but it will become monaural.

Tuning in by Adjusting the Frequency
— Manual Tuning

Select the desired band, then press and hold either side of the MANU button.

MANU DISC

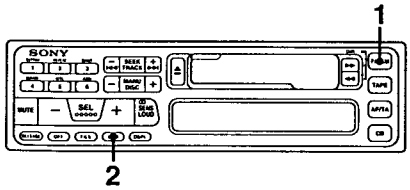
For lower frequencies — For higher frequencies

Release the button when the desired station is received.

PREVENTING ACCIDENTS!

While you are driving, the use of the Automatic Tuning and the Memory Preset Tuning is recommended in favor of the Manual Tuning.

Memorizing the Stations Automatically



The best receiving stations are automatically searched and memorized on each band (FM1, FM2 and AM (MW)). Up to 6 stations on each band can be stored on the preset number buttons 1 to 6 in order of frequency.

Memorizing the Stations Automatically
— BTM (Best Tuning Memory) Function

1 **Select the desired band.**

FM/AM — XR-U400RDS, XR-U300RDS

FM MW/LW — XR-U401RDS, XR-U301RDS

2 **Press the BTM button for more than two seconds.**

BTM

The receivable frequency ranges of the FM bands (FM1, FM2) are the same
Therefore, 12 stations can be memorized on FM.

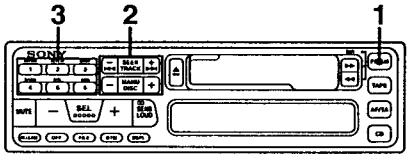
Note
There may be cases where there are not enough receivable stations due to the lack of stations in the vicinity or weak broadcasting signals. In such cases, the BTM operation may stop without all the buttons being occupied with memories.

The BTM function

The BTM function searches all the receivable stations within the currently selected band and memorizes the ones in good receiving conditions in sequence from the lowest frequency.

How to memorize the stations on the preset number buttons
— When there is no preset number indicated on the display window, all the preset number buttons set in the currently selected band will be filled with the memories.
— When there is a preset number indicated on the display window, the unit will memorize the stations on the preset number buttons from the one currently being displayed. For example, when you choose FM2 and preset number 3 is being displayed, the operation will start from preset number 3 on FM2, and will stop at preset number 6 on FM2.

Memorizing Only the Desired Stations



Up to 6 stations on each band (FM1, FM2 and AM (MW)) can be stored on the preset number buttons in order of your choice.

For example, to store a station on preset number button 1.

1 **Select the desired band.**

FM/AM — XR-U400RDS, XR-U300RDS

FM MW/LW — XR-U401RDS, XR-U301RDS

2 **Tune in the station which you wish to store on the preset number button.**

SEEK TRACK or MANU DISC

3 **Press the preset number button for about two seconds until a beep tone is heard.**

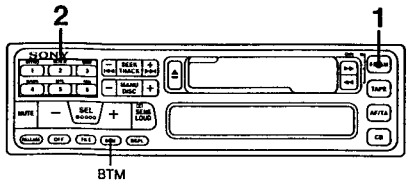
INTRO 1 ➡ FM1 87.9

The number of the pressed preset number button now appears on the display window.

Repeat the same procedure to store other stations.

Each preset number button has only one memory location per band
If you try to store another station on the same preset number button, the previously stored station will be erased.

Receiving the Memorized Stations



1 **Select the desired band.**

FM/AM — FM MW/LW

XR-U400RDS XR-U300RDS — XR-U401RDS XR-U301RDS

2 **Press the desired preset number button lightly.**

INTRO 1 — ABS 6

Checking in Order, All the Stations Stored in the Memory — *Memory Scan Function*

Press the BTM button lightly.

The tuner will receive in order, all the stations stored in the memory for five seconds each. To cancel the function, press the button lightly once more.

Notes

- There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.
- If you keep pressing the preset number button for more than two seconds, the currently received station will be memorized once more. To receive the previously memorized station, make sure that the preset number button is pressed only lightly.

Note

There may be cases where even the stations which are stored in the memory cannot be received due to weak signals in the vicinity of your car.

Overview of the RDS Function

What is RDS?

The RDS (Radio Data System) is a radio digital information system developed and introduced in 1987 by the EBU (European Broadcasting Union). Using the 57 kHz sub-carrier of FM broadcasting, the RDS enables you to receive a variety of information such as station names and traffic information. It also offers some useful functions such as automatic retuning of the best available signal carrying the chosen program.
However, the availability of the RDS data is varied in different areas. Therefore, there may be cases where you may not be able to receive some of the following data.

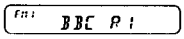
The RDS digital data includes the following:

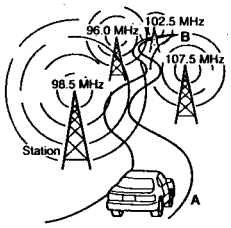
PI	Program Identification
PS	Program Service Name
AF	List of Alternative Frequencies
TP	Traffic Program
TA	Traffic Announcement
PTY	Program Type
EON	Enhanced Other Networks

The following functions are available with this unit using the RDS data. See the marked pages for the operational instructions.

Station Service Name Display *(page 30)*

This function displays the name of the station which is currently tuned in on the display window.





Automatic Retuning — *AF Function (page 31)*

This function automatically retunes in a station with a relatively stronger signal within the same broadcasting network using the PI and AF data.
The illustration above shows an example of a car passing through an area with four stations of the same broadcasting network between points A and B.
As the car moves on, the reception frequency of the station in the network changes from 98.5 MHz to 107.5 MHz then to 96.0 MHz and to 102.5 MHz.
By using the AF function, the driver will be able to keep listening to a program in the same broadcasting network without tuning in the station manually every time he enters a different frequency zone between points A and B.

Receiving Traffic Announcements — *TA Function (page 33)*

This function searches and stands by for a traffic information station using the TP and TA data.
Using this function, the unit automatically searches the station and changes its mode to receive the traffic announcement when the broadcasting starts while you are listening to tape playback or CD play.

Enhanced Other Networks — *EON Function (pages 32 and 33)*

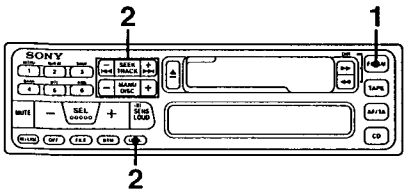
The EON function extends the faculty of the TA and TP functions by enabling the unit to track other stations transmitting the EON data while it is tuned to a network station.

Note

Even if you are listening to a network station, the unit will automatically monitor other EON stations. When there is another traffic announcement, the unit will automatically tune to that station and will retune to the previous station when the broadcast is over.

MC-Service

Station Service Name Display



1 **Select the FM band.**

FM/AM

XR-U400RDS
XR-U300RDS

FM MW/LW

XR-U401RDS
XR-U301RDS

2 **Tune in a desired station by using the Automatic Tuning or Manual Tuning (page 23).**

SEEK TRACK + or − MANU DISC +

If the unit is set in the station service name display mode and a station transmitting the RDS data is received, the name of that station will be displayed on the main display window.

When the "--------" indication appears on the display window in the station service name display mode:
The received station is not an RDS station.

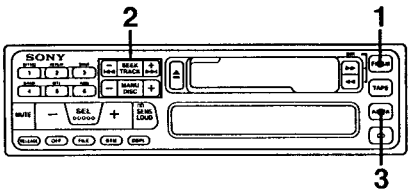
When the unit is in the frequency display mode and an RDS station is received:
The "♯" display appears to indicate that an RDS station is received. To find out the name of the station, press the DSPL button to change the display mode.

Notes
- The RDS data can be received only on the FM band.
- The RDS functions of this unit will not be activated if the FM station being received is not transmitting the RDS data. It may also not work properly in areas where the RDS transmissions are in the experimental stage.

You can change the display mode by pressing the DSPL button
Each time you press the button, the display mode changes as follows:

Station service name
↓
Frequency
↓
Clock

Automatic Retuning — AF Function



1 **Select the FM band.**

FM/AM

XR-U400RDS
XR-U300RDS

FM MW/LW

XR-U401RDS
XR-U301RDS

2 **Tune in a desired RDS station by using the Automatic Tuning or Manual Tuning (page 23).**

SEEK TRACK + or − MANU DISC +

3 **Press the AF/TA button to get the "AF" indication.**

AF/TA

The unit begins to search for an alternative station with a stronger signal in the same network from the AF data (List of Alternative Frequencies). If a stronger signal station is found, the unit retunes in that station. If no strong station is found, both the "NO AF" and the program station name indications flash.

Notes
- When the "AF" indication appears on the display window, only the RDS stations can be tuned in by the Automatic Tuning.
- If the tuned in RDS station is not transmitting the AF data, this function will not work.
- If you press the AF/TA button while the AM (MW, LW) band is being tuned in, the FM1 band will be automatically selected.

Network Stations Memory

When the unit stores an RDS station transmitting the AF data on a preset number button, it stores not only its frequency but also its PI, AF, PS and PTY data. The AF data carries the information of the list of the frequencies of the stations within the same broadcasting network. The unit will store the data in its memory whether the AF function is activated or not.

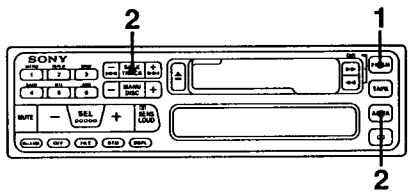
Getting the Stored RDS Stations in Tune from the Broadcasting Networks

Be sure to press the preset number buttons after pressing the AF/TA button to activate the AF function. The AF function will select a better signal station by retuning within the network stations. If you press the preset number buttons without activating the AF function, you will not be able to use this function. In this case, you will only get the individual stations which were tuned in on the previous occasion. The unit will not retune to the other stations in the network even if they are stored in the memory.

RDS Stations Transmitting the EON Data

The EON data incorporates the AF data of other stations as well. Therefore, the unit can update the AF data of the preset stations and these stations will be tuned in the next time the preset number buttons are pressed.

Receiving Traffic Announcements — TA Function



Receiving a Traffic Information Station

1 **Select the FM band.**

FM/AM

XR-U400RDS
XR-U300RDS

FM MW/LW

XR-U401RDS
XR-U301RDS

2 **Press the AF/TA button to get the "TA" indication.**

AF/TA

The search for a traffic information station starts. When an RDS station transmitting the TP data is found, the search stops and the "TP" indication appears on the display window.

The "TA" indication flashes while the traffic announcement is on the air. It stops flashing when the announcement is over.

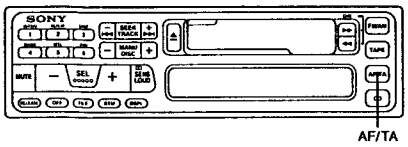
To search another RDS station transmitting traffic announcements
Press either side of the SEEK button while the "TA" indication is still on the display window.

If the TA function is activated while the unit is receiving a station which is transmitting the EON data, the "TA", "TP" and "EON" indications will appear on the display window. In this case, if another station starts broadcasting a traffic announcement, the unit will automatically tune to that station. When the announcement is over, the unit will retune to the previous station.

Notes
- Do not activate the TA function in an area where there is no traffic information broadcasting service available. If you do so, the unit will keep searching for it and other stations cannot be tuned in.
- If you activate the TA function while the AM (MW,LW) band is tuned in, the FM1 band will be automatically selected and the unit will start searching for a traffic information station.

"TP" indication
This indicates that the currently tuned in RDS station offers a traffic information service.

"EON" indication
This indicates that the unit is receiving the station transmitting the EON data.



Standing by for Traffic Announcements While Listening to a Tape or CD

Press the AF/TA button to get the "TA" indication during tape playback or CD play.

AF/TA

Tape playback or the CD play continues while the unit searches for a traffic information station.

When a station is found:
The "TP" indication appears on the display window.

↓

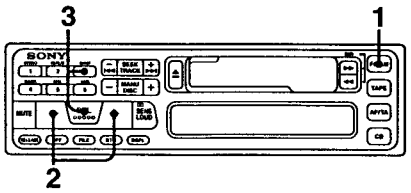
When a traffic announcement starts:
The "TA" indication starts flashing. Tape playback or the CD play stops and the traffic announcement is heard.

↓

When the announcement is over:
Tape playback or the CD play resumes from where it was left off.

To cancel the stand-by mode
Press the AF/TA button to turn off the "TA" indication.

Changing the display to that of the frequency or station name during tape playback or CD play
Press the DSPL button a few times. While the frequency or station service name is being displayed, the SEEK and preset number buttons will function in the same way as they do during a radio reception.



Traffic Announcements are Heard at the Preset Volume Level

When a traffic announcement starts, you can hear it at the preset volume level even if the volume control on the front panel has been turned down. (If you are listening to other sources with a higher volume level, the level will not change.) The preset volume level can be set in the following manner.

1 Select the FM band.
2 Adjust the volume to the desired level.
3 Press preset number button 3 while pressing the SEL button.
A beep tone is heard when the setting has been completed.

PTY (Program Type) Data Emergency Announcement Reception

In case of an emergency, or in a situation where there may be danger from a natural disaster in the area, the RDS stations will transmit the PTY data information to warn drivers that they are in danger. The emergency data includes the character display and the interruption signal for automatically turning on the radio. **This data can only be received while the AF or TA function is being activated.**
If the unit receives the emergency data from an RDS station during tape playback or CD play, the "AF" indication on the display window will start flashing and tape playback or the CD play will stop. The radio will be automatically turned on to receive the emergency announcement from the station.

Maintenance

Fuse Replacement

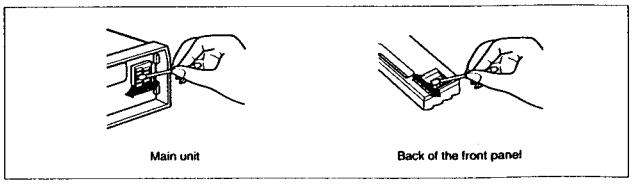
When replacing the fuse, be sure to use the one with the correct amperage which will be stated on the fuse case. Never use a fuse whose amperage rating exceeds the one supplied to the unit as this could cause a malfunction of the unit.

Warning
Use the specified amperage fuse.
Use of a higher amperage fuse may cause serious damage.

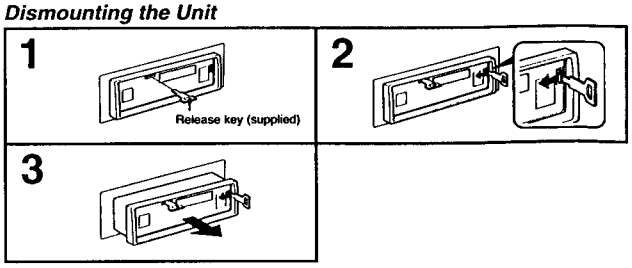
Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are contaminated with dirt. In order to prevent this from happening, open up the front panel by pressing the RELEASE button then detach it and clean the connectors from time to time.

Clean the connectors with a cotton swab as illustrated. Be sure to clean them with a horizontal motion. Never clean them vertically as this could damage the connecting points.



Dismounting the Unit



MC-Service

Installation

Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.
- Be sure to detach the front panel before you start installing the unit.
- **Press the reset button after completing the connections.**

Mounting angle adjustment
Adjust the mounting angle to less than 20°.

How to Detach and Attach the Front Panel

To detach
Press the RELEASE button to open up the front panel, then pull it out.

To attach
Align the parts Ⓐ and Ⓑ, and push the front panel until it clicks.

Installation

Précautions

- Choisir l'emplacement de montage avec soin de manière que l'appareil ne gêne pas les mouvements du conducteur.
- Eviter d'installer l'appareil en plein soleil, près d'une source de chaleur comme un chauffage ou dans un endroit exposé à la poussière, la saleté ou des vibrations excessives.
- Afin de garantir un montage sûr, utiliser uniquement le matériel de montage fourni.
- Veiller à détacher la façade avant d'installer l'appareil.
- **Après avoir terminé les connexions, appuyer sur la touche de réinitialisation sur la façade.**

Réglage de l'angle de montage
Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose de la façade

Retrait
Appuyer sur la touche RELEASE pour ouvrir la façade, puis l'enlever.

Pose
Aligner les points Ⓐ et Ⓑ, puis pousser l'appareil jusqu'au déclic.

Installation

Vorsichtsmaßnahmen

- Wählen Sie den Einbauort sorgfältig so aus, daß das Gerät die Bedienung des Fahrzeugs nicht behindert.
- Bauen Sie das Gerät so ein, daß es keinen hohen Temperaturen (keinem direkten Sonnenlicht, keiner Warmluft von Heizung), keinem Staub, keinem Schmutz und keinen starken Vibrationen ausgesetzt ist.
- Für eine sichere Befestigung verwenden Sie stets nur die mitgelieferten Montageteile.
- Nehmen Sie die Frontplatte vor dem Einbau des Gerätes ab.
- **Nach dem Anschluß drücken Sie die Rückstelltaste.**

Hinweis zum Montagewinkel
Das Gerät sollte in einem Winkel von weniger als 20° montiert werden.

Zum Anbringen und Abnehmen der Frontplatte

Zum Abnehmen
Drücken Sie die RELEASE-Taste zum Lösen der Frontplatte und ziehen Sie sie ab.

Zum Anbringen
Richten Sie Teil Ⓐ auf Teil Ⓑ aus und drücken Sie die Frontplatte fest, so daß sie mit einem Klicken einrastet.

Montage

Voorzorgsmaatregelen

- Installeer het apparaat niet op een plaats waar het u bij besturing van de auto zou kunnen hinderen.
- Installeer het apparaat niet op plaatsen waar het blootgesteld wordt aan hoge temperaturen zoals van direkt zonlicht of de warme luchtstroom van de auto-verwarming, aan sterke trillingen, of waar het in kontakt komt met veel stof of vuil.
- Gebruik voor het veilig en stevig monteren van het apparaat uitsluitend de bijgeleverde montage-onderdelen.
- Verwijder, alvorens met het installeren te beginnen, het afneembare voorpaneel.
- **Druk, nadat u de aansluitingen heeft gemaakt, op de terugsteltoets.**

Maximale montagehoek
Installer het apparaat nooit onder een hoek van meer dan 20° met het horizontale vlak.

Verwijderen en bevestigen van het afneembare voorpaneel

Verwijderen
Druk de RELEASE toets in om het voorpaneel naar voren te laten springen en verwijder dit vervolgens.

Bevestigen
Breng de delen Ⓐ en Ⓑ op één lijn en druk het voorpaneel aan totdat dit vastklikt.

Installazione

Precauzioni

- Scegliere con attenzione il luogo di montaggio in modo che l'apparecchio non interferisca con le normali operazioni di guida del conducente.
- Evitare di installare l'apparecchio dove sia soggetto ad alte temperature, come da esposizione alla luce solare diretta o al getto di aria calda dell'impianto di riscaldamento, o dove possa essere soggetto a polvere, sporco e vibrazioni eccessive.
- Usare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.
- Prima di installare l'apparecchio staccare il pannello anteriore.
- **Premere il pulsante di azzeramento dopo avere completato i collegamenti.**

Regolazione dell'angolo di montaggio
Regolare l'angolo di montaggio in modo che sia inferiore a 20°.

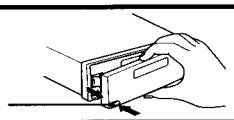
Come staccare e attaccare il pannello anteriore

Per staccare
Premere il tasto RELEASE per aprire il pannello anteriore e quindi tirarlo verso l'esterno.

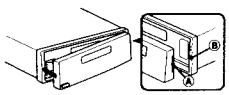
Per attaccare
Allineare le parti Ⓐ e Ⓑ e spingere il pannello anteriore fino a udire uno scatto.

To detach
Retrait
Zum Abnehmen
Verwijderen
Per staccare

RELEASE button
Touche RELEASE
RELEASE-Taste
RELEASE toets
Tasto RELEASE



To attach
Pose
Zum Anbringen
Aanbrengen
Per attaccare



Mounting Example

Installation in the dashboard

Exemple de montage

Installation dans le tableau de bord

Einbaubeispiel

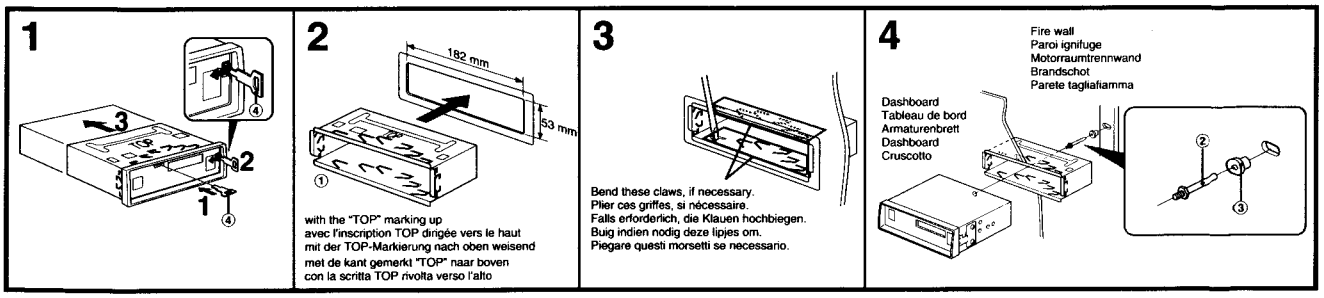
Installation im Armaturenbrett

Montagevoorbeeld

Montage in het dashboard

Esempio di montaggio

Installazione sul crustotto



Mounting the Unit in a Japanese Car

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your nearest Sony dealer.

Installation de l'appareil dans une voiture japonaise

Si l'appareil ne peut pas être installé dans une voiture japonaise, consulter le revendeur Sony le plus proche.

Montage in einem japanischen Fahrzeug

In einige japanische Fahrzeuge kann dieses Gerät nicht eingebaut werden. Genaueres erfahren Sie bei Ihrem Sony Händler.

Montage in een Japanse auto

Het kan gebeuren dat u dit apparaat in bepaalde Japanse auto's niet kunt installeren. Neem in een dergelijk geval kontakt op met uw Sony dealer.

Montaggio dell'apparecchio su un'auto giapponese

Può non essere possibile installare questo apparecchio in alcune auto giapponesi. In questo caso, consultare il più vicino rivenditore Sony.

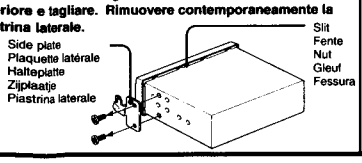
1 **Run a blade along the slits on the back of the front trim and cut it off the unit. At the same time, remove the side plate as well.**

Passer une lame le long des fentes à l'arrière de la bordure et la couper. Enlever en même temps la plaquette latérale.

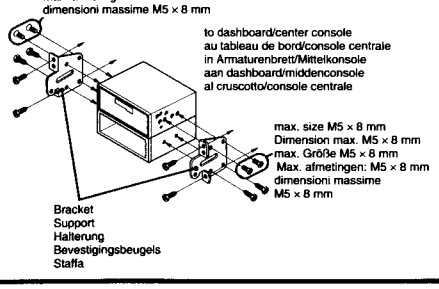
Fahren Sie mit einer Klinge entlang der Nuten an der Rückseite der Frontverkleidung und nehmen Sie die Frontverkleidung ab. Nehmen Sie gleichzeitig auch die seitliche Halteplatte ab.

Haal, indien nodig, het blad van een mes langs de gleuf van de voorste afwerking, om deze van het apparaat te verwijderen. Verwijder hierbij tevens de zijplaatjes.

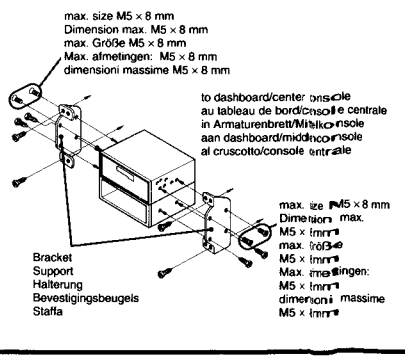
Passare una lama lungo le fessure sul retro della finitura anteriore e tagliare. Rimuovere contemporaneamente la piastrina laterale.



2 **TOYOTA**



NISSAN



Note
Use the existing parts supplied to your car.

Remarque
Utiliser les pièces fournies avec la voiture.

Hinweis
Verwenden Sie die bei Ihrem Fahrzeug mitgelieferten Teile.

Opmerking
Gebruik alleen de voor uw auto bijgeleverde onderdelen.

Nota
Usare le parti in dotazione all'auto.

Connections | Connexions | Anschluß | Aansluitingen | Collegamenti

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal which is energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher le fil d'entrée d'alimentation **rouge** en dernier. En outre, veiller à le raccorder à la borne d'alimentation de 12 V positive qui est alimentée quand la clé de contact est sur la position accessoire.
- **Rassembler tous les fils en un point de masse commun.**

Vorsicht

- Dieses Gerät ist ausschließlich für eine negativ geerdete 12-V-Autobatterie bestimmt.
- Trennen Sie vor dem Anschließen des Gerätes die Erdungsklemme der Autobatterie ab, um einen Kurzschluß zu vermeiden.
- Schließen Sie die **rote** Stromversorgungsleitung als letztes, nachdem alle anderen Anschlüsse hergestellt sind, an einen positiven 12-V-Kontakt des Bordnetzes an, der in der Zubehörposition des Zündschlosses unter Strom steht.
- **Leiten Sie alle Erdungskabel an einen gemeinsamen Massepunkt ab.**

Let op !

- Dit apparaat is ontworpen voor gebruik op gelijkstroom van een 12 volts auto-accu, negatief geaard.
- Alvorens te beginnen met het maken van aansluitingen, dient de aardklem van de auto-accu te worden losgemaakt. Dit om kortsluiting te voorkomen.
- Sluit de **rode** stroomdraad pas aan nadat alle andere aansluitingen zijn gemaakt. Zorg ervoor dat deze stroomdraad op de positieve 12 V accu-aansluiting wordt aangesloten. De draad komt dan onder spanning te staan, wanneer de kontaktsleutel wordt omgedraaid (naar "ACC").
- **Sluit alle aarddraden op een gemeenschappelijk aardpunt aan.**

Attenzione

- Questo apparecchio è stato progettato per l'uso solo in funzionamento a 12 V CC con massa negativa.
- Prima di eseguire i collegamenti, scollegare il terminale di massa della batteria dell'auto per evitare cortocircuiti.
- Collegare il cavo **rosso** di ingresso alimentazione solo dopo aver collegato tutti gli altri cavi e assicurarsi di collegarlo al terminale di alimentazione positivo da 12 V. Questo terminale è sotto tensione quando la chiavetta di accensione si trova nella posizione accessoria.
- **Portare tutti i cavi di massa a un punto di massa comune.**

When the Unit is Used in a Car with No Accessory Position on the Ignition Key

— POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if the unit is used in a car with no accessory position on the ignition key.**
To avoid this battery wear when using the unit in such a car, **set the POWER SELECT switch located on the bottom of the unit to the OFF position, then press the reset button.** The illumination is reset to stay off while the unit is not being played.

Note
The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the OFF position.

Si l'appareil est utilisé dans une voiture dont la clé de contact n'a pas de position accessoire

— Interrupteur POWER SELECT

L'affichage de la façade avant est réglé en usine de manière à s'allumer même quand l'appareil ne fonctionne pas. Cependant, ce réglage risque d'épuiser la batterie **si l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoire.** Pour éviter d'épuiser la batterie, régler **l'interrupteur POWER SELECT sur le fond de l'appareil sur OFF, puis appuyer sur la touche de réinitialisation.** L'affichage est réinitialisé pour rester éteint quand l'appareil n'est pas utilisé.

Remarque
Quand l'interrupteur POWER SELECT est réglé sur OFF, l'avertisseur de la façade ne fonctionne pas.

Wenn das Zündschloß Ihres Wagens keine Zubehörposition besitzt

— POWER SELECT-Schalter

Das Gerät ist werksseitig so voreingestellt, daß das Bedienungspult auch dann beleuchtet ist, wenn das Gerät nicht betrieben wird. **Besitzt das Zündschloß Ihres Fahrzeugs keine Zubehörposition, so ist die Beleuchtung ständig eingeschaltet** und entzieht der Batterie Strom. Stellen Sie in einem solchen Fall **den POWER SELECT-Schalter an der Unterseite des Gerätes auf OFF, und drücken Sie die Rückstelltaste.** Bei ausgeschaltetem Gerät ist das Bedienungspult dann nicht mehr beleuchtet.

Hinweis
Der Warnton ertönt nicht, wenn der POWER SELECT-Schalter auf OFF gestellt ist.

Installatie van de apparatuur in een auto met kontaktslot zonder "accessory" stand

— Stroomkeuzeschakelaar (POWER SELECT)

Het uitleesvenster is in de fabriek zo ingesteld dat de aanduidingen in het uitleesvenster oplichten wanneer de kontaktsleutel wordt omgedraaid. **Als het apparaat echter wordt gemonteerd in een auto waar het kontaktslot geen "ACC" (accessory) stand heeft,** kan dit leiden tot onnodige uitputting van de accu. Om dit te vermijden, **zet u de POWER SELECT schakelaar aan de onderkant van het apparaat op "OFF" en vervolgens drukt u op de terugsteltoets.** De aanduidingen in het uitleesvenster zullen nu niet oplichten als het apparaat niet wordt gebruikt.

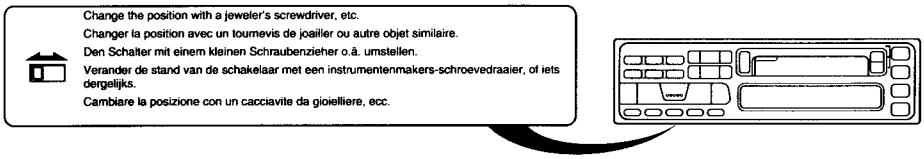
Opmerking
Als de POWER SELECT schakelaar op "OFF" staat, zal het waarschuwingssignaal voor het afneembare voorpaneel niet funktioneren.

Quando si usa l'apparecchio in un'auto priva di posizione accessoria per la chiavetta di accensione

— Interruttore POWER SELECT

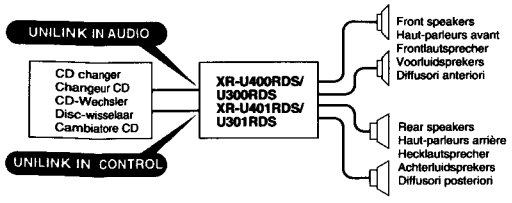
L'illuminazione del pannello anteriore è stata predisposta in fabbrica per l'attivazione anche quando non si usa l'apparecchio. Tuttavia questa regolazione può causare lo scaricamento della batteria dell'auto **se si usa l'apparecchio in un'auto priva di posizione accessoria per la chiavetta di accensione.**
Per evitare lo scaricamento della batteria quando si usa l'apparecchio in questo tipo di auto, **regolare su OFF l'interruttore POWER SELECT situato sul fondo e quindi premere il pulsante di azzeramento.** L'illuminazione viene così regolata per lo spegnimento quando non si usa l'apparecchio.

Nota
La suoneria di avvertimento per il pannello anteriore non si attiva quando l'interruttore POWER SELECT è regolato sulla posizione OFF.

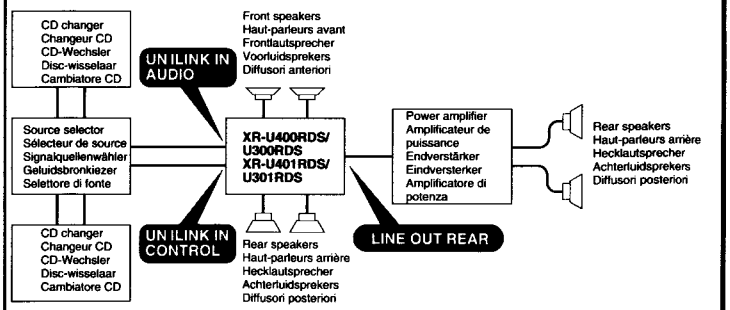

Change the position with a jeweler's screwdriver, etc.
Changer la position avec un tournevis de joailler ou autre objet similaire.
Den Schalter mit einem kleinen Schraubenzieher o.ä. umstellen.
Verander de stand van de schakelaar met een instrumentenmakers-schroevedraaier, of iets dergelijks.
Cambiare la posizione con un cacciavite da gioielliere, ecc.

Connection Diagram | Schémas de connexion | Anschlußdiagramm | Aansluitschema | Schema di collegamento

Example 1
Exemple 1
Beispiel 1
Voorbeeld 1
Esempio 1



Example 2
Exemple 2
Beispiel 2
Voorbeeld 2
Esempio 2



If you connect two or more CD changers, the source selector XA-U20 or XA-U40 is required.
Si au moins deux changeurs sont raccordés, le sélecteur de source XA-U20 ou XA-U40 est indispensable.
Bei Anschluß von zwei oder mehr CD-Wechslern wird der Signalquellenwähler XA-U20 oder XA-U40 benötigt.
Voor het aansluiten van twee meer of disc-wisselaars is gebruik van de geluidsbronkiezer XA-U20 of XA-U40 nodig.
Se si collegano due o più cambiatori CD, è necessario il selettore di fonte XA-U20 o XA-U40.

Note
When the optional graphic equalizer or digital signal processor is connected to the unit, the built-in power amplifier of the unit cannot be used.

Remarque
Si vous raccordez l'égaliseur graphique ou le processeur de signal numérique en option, vous ne pourrez pas utiliser l'amplificateur intégré de l'autoradio.

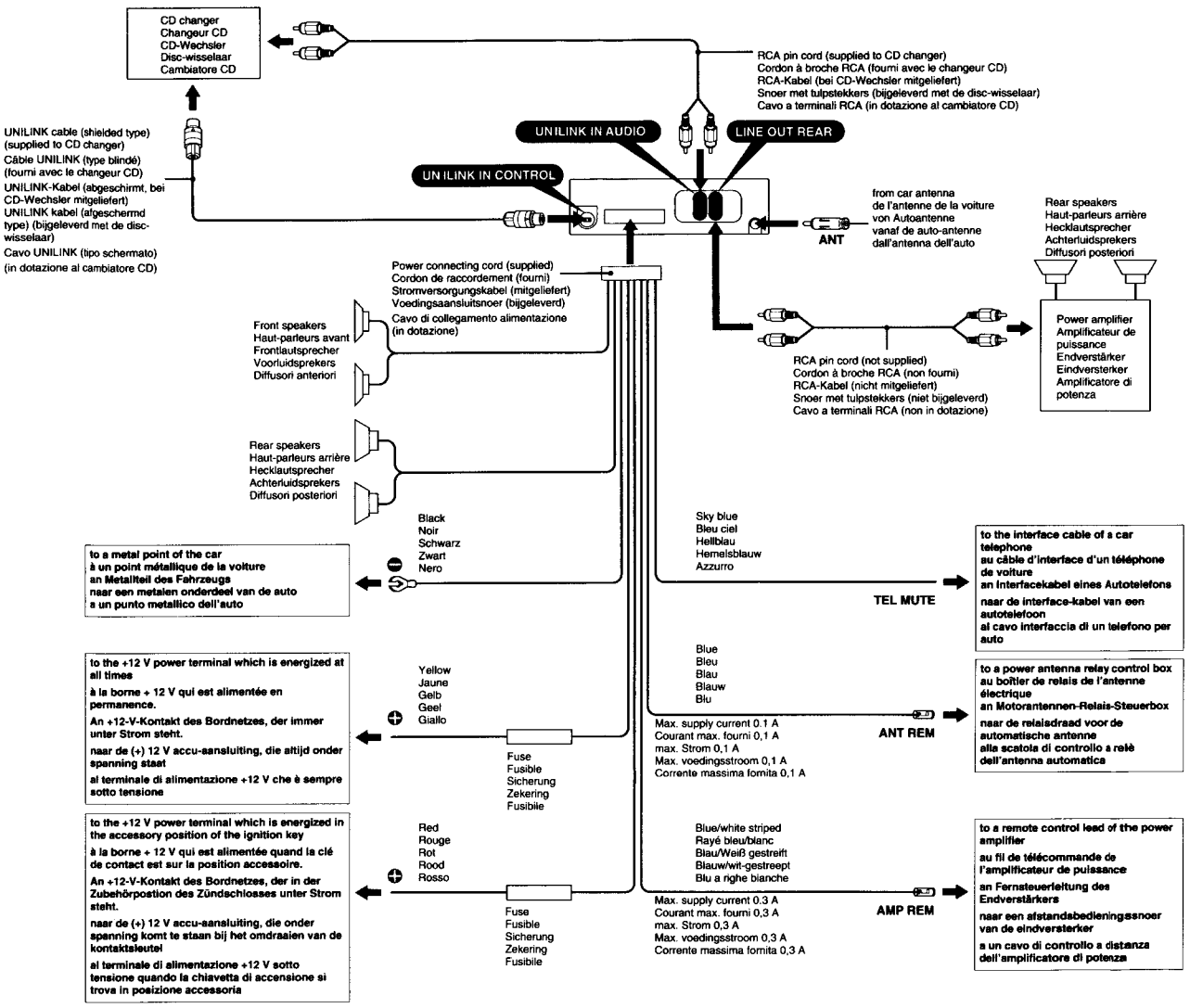
Hinweis
Bei Anschluß eines getrennt erhältlichen Graphic-Equalizers oder eines digitalen Signalprozessors kann der eingebaute Endverstärker nicht benutzt werden.

Opmerking
Bij aansluiten van een los verkrijgbare grafiek-toonregeling of een digitale signaalverwerkingseenheid op dit apparaat kan de ingebouwde eindversterker hiervan niet worden gebruikt.

Nota
Quando è collegato un equalizzatore grafico o un elaboratore di segnale digitale, l'amplificatore di potenza incorporato all'apparecchio non può essere usato.

MC-Service

Connections of Example / Exemple de connexion / Anschlußbeispiel / Aansluit voorbeeld / Esempio di collegamento


CD changer
Changeur CD
CD-Wechsler
Disc-wisselaar
Cambiatore CD
UNILINK cable (shielded type) (supplied to CD changer)
Câble UNILINK (type blindé) (fourni avec le changeur CD)
UNILINK-Kabel (abgeschirmt, bei CD-Wechsler mitgeliefert)
UNILINK kabel (afgeschermd type) (bijgeleverd met de disc-wisselaar)
Cavo UNILINK (tipo schermato) (in dotazione al cambiatore CD)
RCA pin cord (supplied to CD changer)
Cordon à broche RCA (fourni avec le changeur CD)
RCA-Kabel (bei CD-Wechsler mitgeliefert)
Snoer met tulpstekkers (bijgeleverd met de disc-wisselaar)
Cavo a terminali RCA (in dotazione al cambiatore CD)
UNILINK IN AUDIO
LINE OUT REAR
UNILINK IN CONTROL
ANT
from car antenna
de l'antenne de la voiture
von Autoantenne
vanaf de auto-antenne
dall'antenna dell'auto
Rear speakers
Haut-parleurs arrière
Hecklautsprecher
Achterluidsprekers
Diffusori posteriori
Power amplifier
Amplificateur de puissance
Endverstärker
Eindversterker
Amplificatore di potenza
Power connecting cord (supplied)
Cordon de raccordement (fourni)
Stromversorgungskabel (mitgeliefert)
Voedingsaansluitsnoer (bijgeleverd)
Cavo di collegamento alimentazione (in dotazione)
RCA pin cord (not supplied)
Cordon à broche RCA (non fourni)
RCA-Kabel (nicht mitgeliefert)
Snoer met tulpstekkers (niet bijgeleverd)
Cavo a terminali RCA (non in dotazione)
Front speakers
Haut-parleurs avant
Frontlautsprecher
Voorluidsprekers
Diffusori anteriori
Rear speakers
Haut-parleurs arrière
Hecklautsprecher
Achterluidsprekers
Diffusori posteriori
Black
Noir
Schwarz
Zwart
Nero
to a metal point of the car
à un point métallique de la voiture
an Metallteil des Fahrzeugs
naar een metalen onderdeel van de auto
a un punto metallico dell'auto
Sky blue
Bleu ciel
Hellblau
Hemelsblauw
Azzurro
TEL MUTE
to the interface cable of a car telephone
au câble d'interface d'un téléphone de voiture
an Interfacekabel eines Autotelefons
naar de interface-kabel van een autotelefoon
al cavo interfaccia di un telefono per auto
to the +12 V power terminal which is energized at all times
à la borne + 12 V qui est alimentée en permanence.
An +12-V-Kontakt des Bordnetzes, der immer unter Strom steht.
naar de (+) 12 V accu-aansluiting, die altijd onder spanning staat
al terminale di alimentazione +12 V che è sempre sotto tensione
Yellow
Jaune
Gelb
Geel
Giallo
Fuse
Fusible
Sicherung
Zekering
Fusibile
Blue
Bleu
Blau
Blauw
Blu
ANT REM
Max. supply current 0.1 A
Courant max. fourni 0,1 A
max. Strom 0,1 A
Max. voedingsstroom 0,1 A
Corrente massima fornita 0,1 A
to a power antenna relay control box
au boîtier de relais de l'antenne électrique
an Motorantennen-Relais-Steuerbox
naar de relaisdraad voor de automatische antenne
alla scatola di controllo a relè dell'antenna automatica
to the +12 V power terminal which is energized in the accessory position of the ignition key
à la borne + 12 V qui est alimentée quand la clé de contact est sur la position accessoire.
An +12-V-Kontakt des Bordnetzes, der in der Zubehörpostion des Zündschlosses unter Strom steht.
naar de (+) 12 V accu-aansluiting, die onder spanning komt te staan bij het omdraaien van de contactsleutel
al terminale di alimentazione +12 V sotto tensione quando la chiavetta di accensione si trova in posizione accessoria
Red
Rouge
Rot
Rood
Rosso
Fuse
Fusible
Sicherung
Zekering
Fusibile
Blue/white striped
Rayé bleu/blanc
Blau/Weiß gestreift
Blauw/wit-gestreept
Blu a righe bianche
AMP REM
Max. supply current 0.3 A
Courant max. fourni 0,3 A
max. Strom 0,3 A
Max. voedingsstroom 0,3 A
Corrente massima fornita 0,3 A
to a remote control lead of the power amplifier
au fil de télécommande de l'amplificateur de puissance
an Fernsteuerleitung des Endverstärkers
naar een afstandsbedieningssnoer van de eindversterker
a un cavo di controllo a distanza dell'amplificatore di potenza

Notes on the control leads
- The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency) or the TA (Traffic Announcement) Function.
- A power antenna without relay box cannot be used with this unit.

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Remarques sur les fils de contrôle
- Le fil de contrôle (bleu) de l'antenne électrique fournit un courant continu de +12 V quand le tuner est allumé ou quand la fonction ATA (Activation automatique du tuner), AF (Fréquences alternatives) ou TA Informations routières) est mise en service.
- Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.

Connexion pour le maintien de la mémoire
Quand le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Hinweise zu den Steuerleitungen
- Die (blaue) Motorantennen-Steuerleitung liefert eine Gleichspannung von +12 V, wenn der Tuner eingeschaltet, die ATA-Funktion (Automatic Tuner Activation), die AF-Funktion (Alternative Frequency) oder die TA-Funktion (Traffic Announcement) aktiviert ist.
- Es kann nur eine Motorantenne mit Relaisbox angeschlossen werden.

Zur Stromversorgung des Speichers
Sofern die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher-Schaltkreis stets (d.h. auch bei ausgeschafteter Zündung) mit Strom versorgt.

Opmerking over de aansluitsnoeren
- Het aansluitsnoer voor de automatische antenne (blauw) levert +12 V gelijkstroom als de tuner wordt ingeschakeld, of wanneer de ATA (automatisch inschakelen van de tuner funkte, de AF (alternatieve frekwenties) of de TA (verkeersinformatie) funktie wordt ingeschakeld.
- Met dit apparaat is het niet mogelijk een automatische antenne zonder relaishuis te gebruiken.

Instandhouden van het geheugen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het geheugen intakt, ook wanneer het kontakt van de auto wordt uitgeschakeld.

Note sui cavi di controllo
- Il cavo di controllo dell'antenna automatica (blu) fornisce +12 V CC quando si accende il sintonizzatore o quando si attiva la funzione ATA (attivazione automatica sintonizzatore) la funzione AF (frequenze alternative) o la funzione TA (notiziari sul traffico).
- Non è possibile usare un'antenna automatica senza scatola a relè con questo apparecchio.

Collegamento per la conservazione in memoria
Quando è collegato il cavo di ingresso alimentazione giallo, il circuito di memoria è alimentato continuamente anche quando la chiavetta di accensione è regolata sulla posizione di spegnimento.

Reset Button

When the installation and connections are over, be sure to press the reset button with a ball-point pen etc. The reset button is located on the unit side when the front panel is detached.

Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo bille ou autre objet pointu. La touche de réinitialisation est située sur la partie de l'appareil qui se trouve derrière la façade.

Rückstelltaste

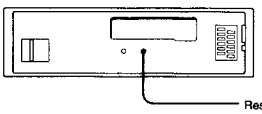
Nach der Installation und dem Anschluß muß die Rückstelltaste mit einem Kugelschreiber o.ä. gedrückt werden. Die Rückstelltaste befindet sich hinter der Frontplatte auf der Gerätevorderseite.

Terugsteltoets

Druk, nadat u het apparaat heeft geïnstalleerd en de aansluitingen heeft gemaakt, met een balpen of ander gepunt voorwerp op de terugsteltoets. De terugsteltoets bevindt zich links van de aansluiting op de voorkant, achter het afneembare voorpaneel.

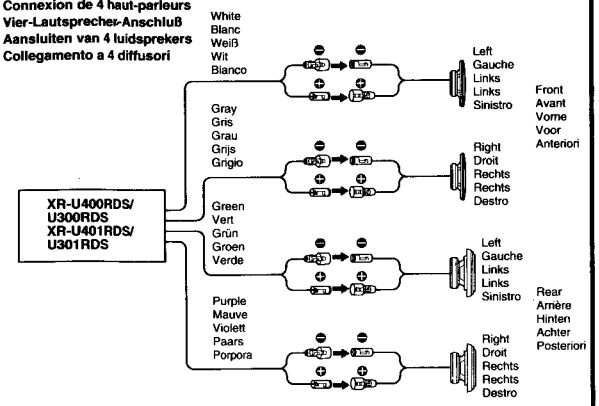
Pulsante di azzeramento

Dopo avere terminato l'installazione e i collegamenti, assicurarsi di premere il pulsante di azzeramento con la punta di una penna a sfera ecc. Il pulsante di azzeramento è collocato sul lato dell'apparecchio quando il pannello anteriore è staccato.



Speaker Connection
Connexion des haut-parleurs
Lautsprecheranschluß
Aansluiten van de luidsprekers
Collegamento dei diffusori

4-speaker connection
Connexion de 4 haut-parleurs
Vier-Lautsprecher-Anschluß
Aansluiten van 4 luidsprekers
Collegamento a 4 diffusori



Notes on speaker connection
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.

Remarques sur la connexion des haut-parleurs
- Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.
- Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.
- Ne pas raccorder des haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleur de l'appareil sous peine de les endommager. Veiller à raccorder des haut-parleurs passifs à ces bornes.

Hinweise zum Lautsprecheranschluß
- Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.
- Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.
- An die Lautsprecheranschlüsse dieses Gerätes dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da diese sonst beschädigt werden können.

Opmerkingen betreffende het aansluiten van de luidsprekers
- Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.
- Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter en linker luidspreker niet op elkaar aan.
- Sluit geen aktieve luidsprekers (met ingebouwde versterkers) aan op de luidspreker-aansluiting van dit apparaat. Dit kan leiden tot beschadiging van de aktieve luidsprekers. Sluit dus altijd alleen luidsprekers zonder ingebouwde versterker aan.

Note sul collegamento dei diffusori
- Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori possono essere danneggiati.
- Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.
- Non collegare alcun diffusore attivo (con amplificatore incorporato) ai terminali diffusori dell'apparecchio perché questo può danneggiare i diffusori attivi. Assicurarsi di collegare dei diffusori passivi a questi terminali.

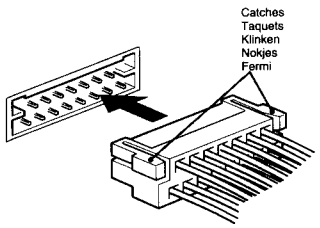
Note on the power connector
Be sure to insert the connector firmly until the catches on both sides of the connector click into place.

Remarque sur le connecteur d'alimentation
Insérer à fond le connecteur de manière que les taquets des deux côtés du connecteur s'enclenchent.

Hinweis zum Stromversorgungsanschluß
Stecken Sie den Stecker ganz in die Buchse ein, bis die klinken an beiden Seiten des Steckers einschnappen.

Opmerking betreffende de stroomaansluiting
Zorg dat u de stekker stevig in de aansluiting steekt tot de nokjes aan weerszijden van de stekkeruiteinde stevig vastklikken.

Nota sul connettore di alimentazione
Assicurarsi di inserire fermamente il connettore fino a quando i fermi su entrambi i lati del connettore scattano in posizione.



MC-Service

SECTION 2
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before aejustment:
   PB head — Pinch roller
   Idler — Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	25—55g•cm (0.35—0.76oz•inch)
FWD Back Tension		1.5—4.0g•cm (0.02—0.06oz•inch)
REV	CQ-102RC	25—55g•cm (0.35—0.76oz•inch)
REV Back Tension		1.5—4.0g•cm (0.02—0.06oz•inch)
FF, REW	CQ-201B	50—150g•cm (0.69—2.08oz•inch)

SECTION 3
ELECTRICAL ADJUSTMENTS

DECK SECTION | **0dB=0.775V**

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

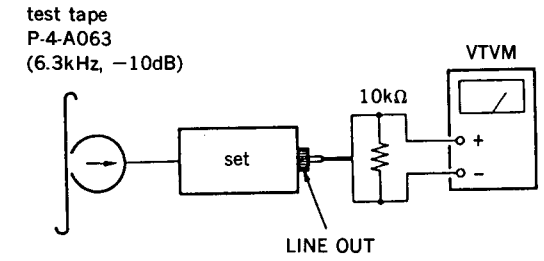
Test Tape

Type	Signal	Used for
P-4-A063	6.3kHz, −10dB	head azimuth adjustment
WS-48A	3kHz, 0dB	tape speed adjustment

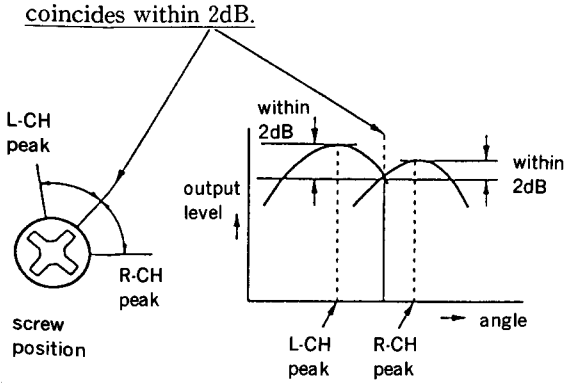
PB Head Azimuth Adjustment

Procedure:

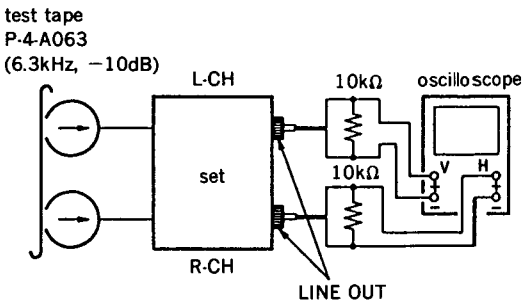
1. Mode: playback

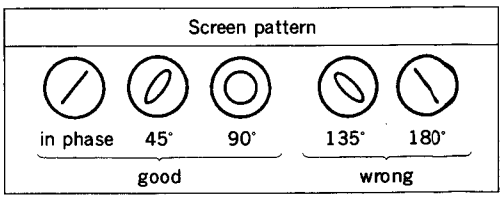


2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2dB.



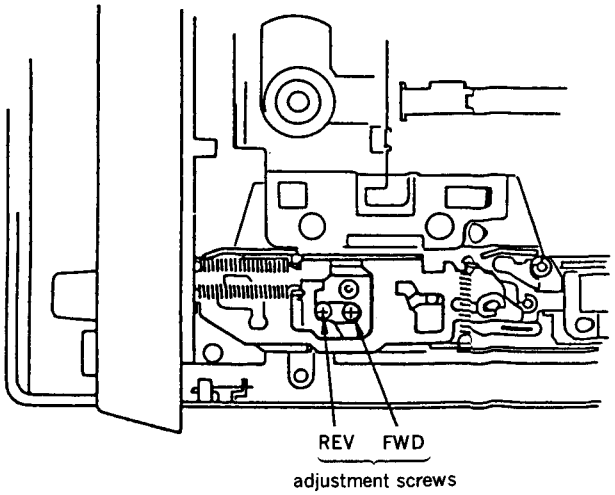
3. Check the phase in the PB mode.





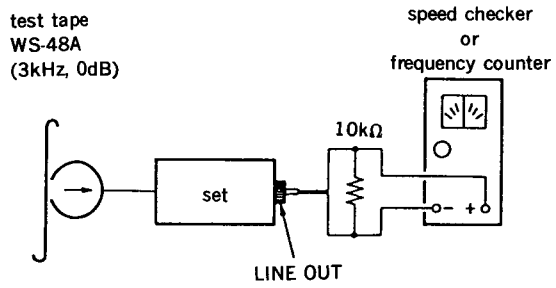
4. Repeat the above adjustment for the PB REV mode.

Adjustment Location:



Tape Speed Adjustment

Setting :



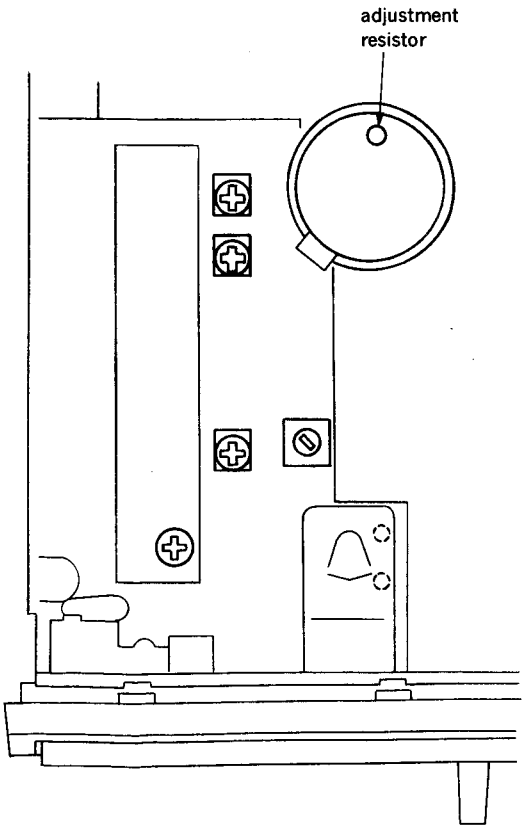
Procedure :

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification : Constant speed

Speed checker	Frequency counter
−1.5 to +2.5%	2,955 to 3,075Hz

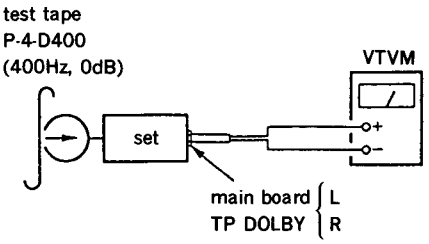
Adjustment Location :



DOLBY Level Adjustment (XR-U400RDS/U401RDS)

Setting :

(Dolby NR) button : OFF
SEL (volume) button : Maximum
SEL (balance) button : Center
SEL (bass) button : Center
SEL (treble) button : Center



Procedure :

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) and RV201 (R-CH) so that VTVM reading is −4.7±1.5 dB (0.38 to 0.54V).

Adjustment Location : main board

TEST MODE

This set have the test mode function. In the test mode, FM Auto SEEK/Stop Level and AM Auto SEEK/Stop Level adjustments can be performed easier than it in ordinaly procedure.

〈Set the Test Mode〉

1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for two seconds.
5. Then the display indicates five patterns and stops, the test mode is set.

〈Rerease the Test mode〉

1. Push the "OFF" button.

See the adjustment location from on page 20 for the adjustment.

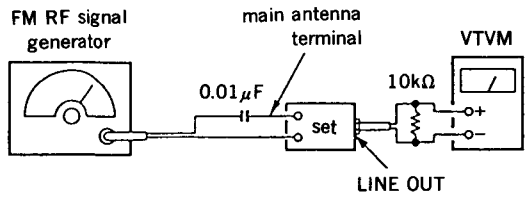
TUNER SECTION | 0dB=1μV

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Stereo Separation Adjustment

Setting :

FM/AM or (FM MW/LW) button : FM



Carrier frequency: 98.0MHz
Output level : 60dB (1.0mV)
Mode : stereo
Modulation : main: 1kHz, 33.75kHz deviation (45%)
sub: 1kHz, 33.75kHz deviation (45%)
19kHz pilot: 7.5kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV1 for minimum

L-CH Stereo separation : Ⓐ−Ⓑ
R-CH Stereo separation : Ⓒ−Ⓓ
The separations of both channels should be equal.

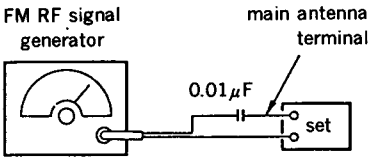
Specification : Separation more than 28dB

Adjustment Location : main board

FM Auto SEEK/Stop Level Adjustment

Setting :

FM/AM or (FM MW/LW) button : FM



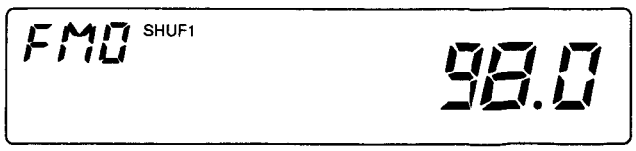
Carrier frequency: 98.0MHz
Output level : 22dB (12.6μV)
Mode : mono
Modulation : no modulation

Procedure :

1. Set to the test mode. (See page 17.)
2. Push the [FM/AM] or ([FM MW/LW]) button and set to FM.

3. Push the preset [3] button.

4. Push the [SEEK TRACK+▶▶I] button.
5. Adjust RV2 so that the "FM" indication turns to "FM0" indication on the sub display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.



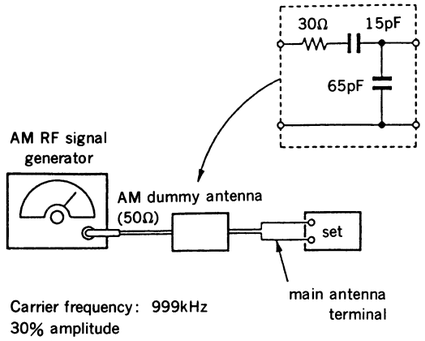
Specification : Stop sensitivity : 22dB±5dB

Note) "0" indication of sub display was align voltage of TP (SD).
TP (SD) voltage 0V →"0" light off
TP (SD) voltage 5V →"0" light on

AM Auto SEEK/Stop Level Adjustment

Setting :

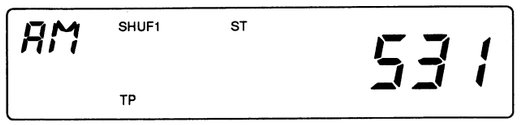
FM/AM or (FM MW/LW) button : AM (LW)



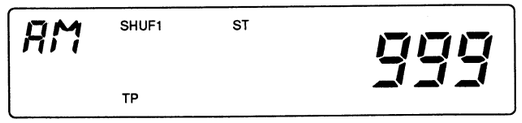
Carrier frequency: 999kHz
30% amplitude modulation by 400Hz signal
Output level : 30dB (31.6μV)

Procedure :

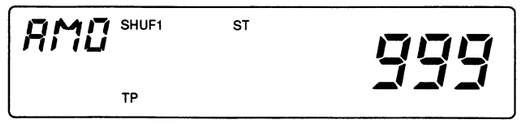
1. Set to the test mode. (See page 17.)
2. Push the [FM/AM] or ([FM MW/LW]) button and set to AM (LW).



3. Push the preset [3] button.



4. Adjust with the volume TU1 so that the "AM" indication turns to "AM0" indication on the sub display window. But, in case of already indicated "AM0", turn the TU1 so that put out light "0" indication and adjustment.



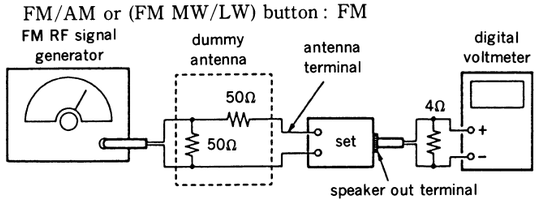
Specification : Stop sensitivity : 30dB±5dB

Note) "0" indication of sub display was align voltage of TP (SD).
TP (SD) voltage 0V →"0" light off
TP (SD) voltage 5V →"0" light on

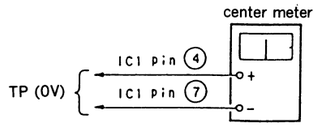
FM Center Adjustment

Setting :

FM/AM or (FM MW/LW) button : FM

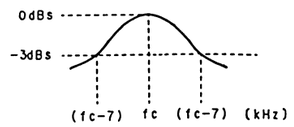


Carrier frequency: 98.0MHz
Output level : 60dB (1mV)
Mode : mono
Modulation : 1kHz, 75kHz deviation (100%)



Procedure :

1. Adjust T1 so that the reading on the center meter becomes in 0±30mV.
2. Output an Fcenter 60dB signal output from FM rf signal generator so that the speaker output terminal is 0dBs.
3. Change the FM rf signal generator frequency and check the deviation of the frequency on + side and − side when the speaker output terminal drops 3dB.
4. Re-adjust T1 when the difference deviation of the frequency does more than 7kHz.

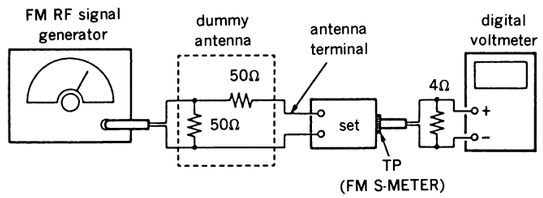


Adjustment Location : main board

FM S-Meter Adjustment

Setting :

FM/AM or (FM MW/LW) button : FM



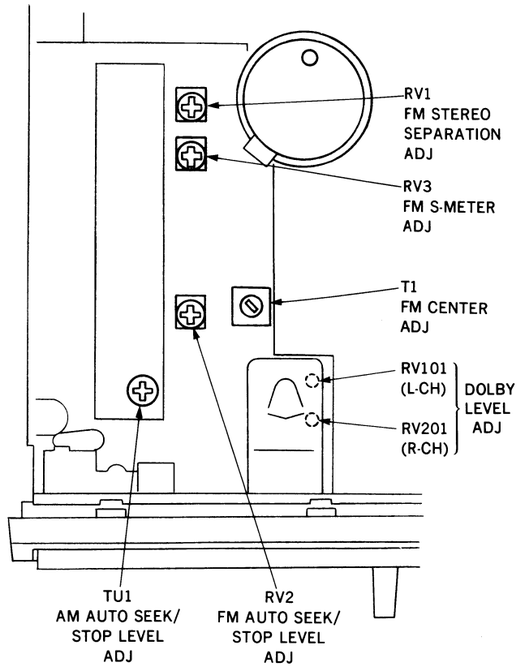
Carrier frequency: 98.0MHz
Output level : 35dB (56.2μV)
Mode : mono
Modulation : 1kHz, 75kHz deviation (100%)

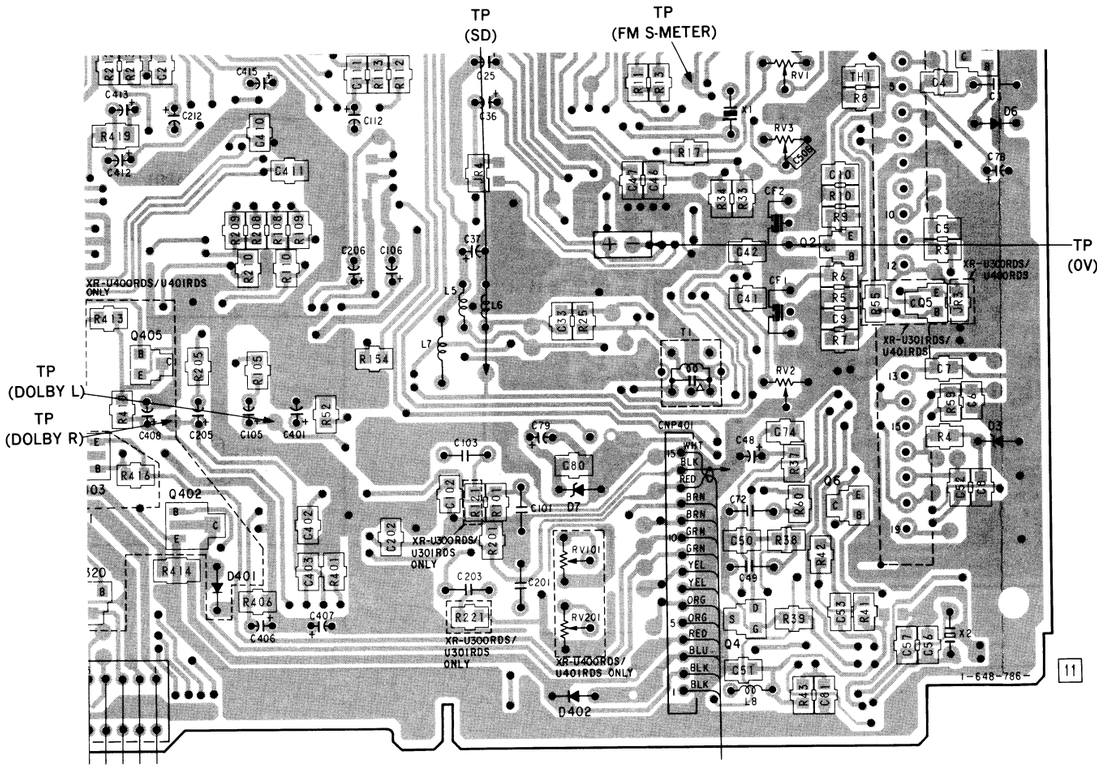
Procedure :

1. Push the preset [3] button.
2. Adjust RV3 so that the reading on the digital voltmeter becomes in 1.875±0.1V.

Adjustment Location : main board

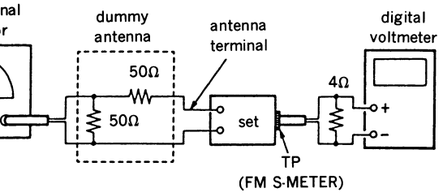
Adjustment Location :





er Adjustment

or (FM MW/LW) button : FM

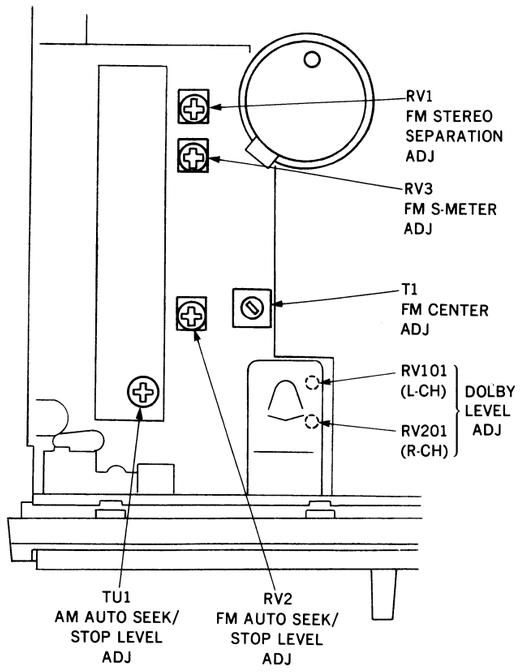


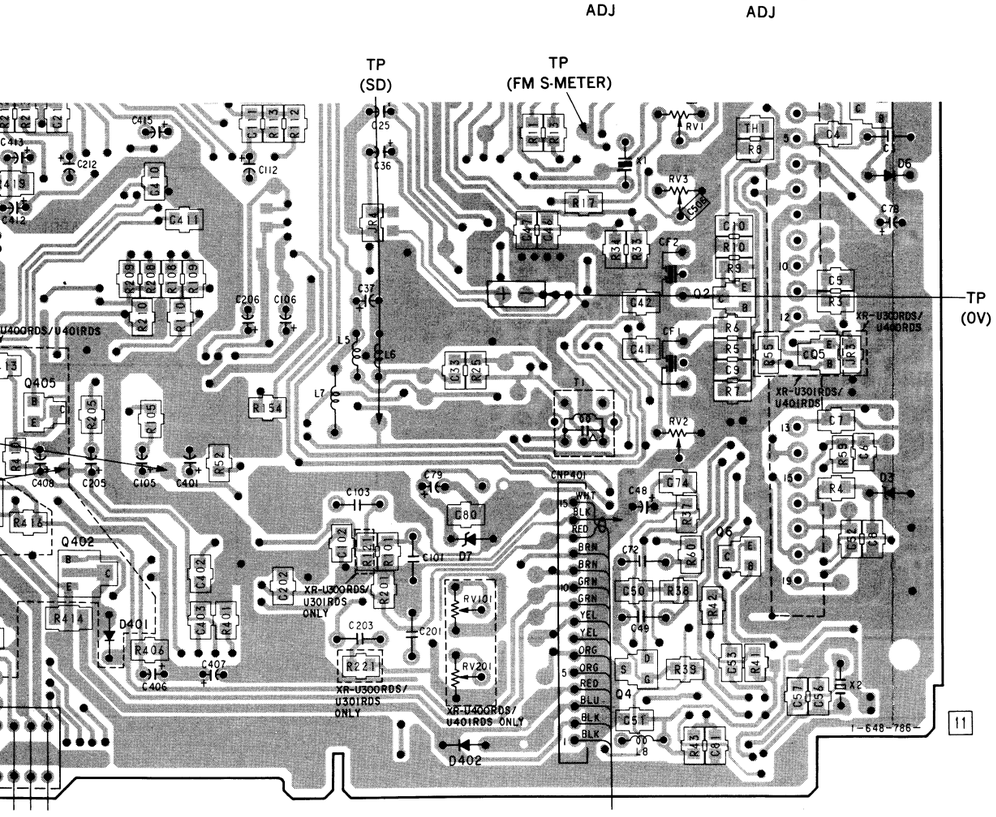
ency: 98.0MHz
: 35dB (56.2μV)
: mono
: 1kHz, 75kHz deviation (100%)

:
he preset 3 button.
RV3 so that the reading on the digital voltmeter
es in 1.875±0.1V.

t Location : main board

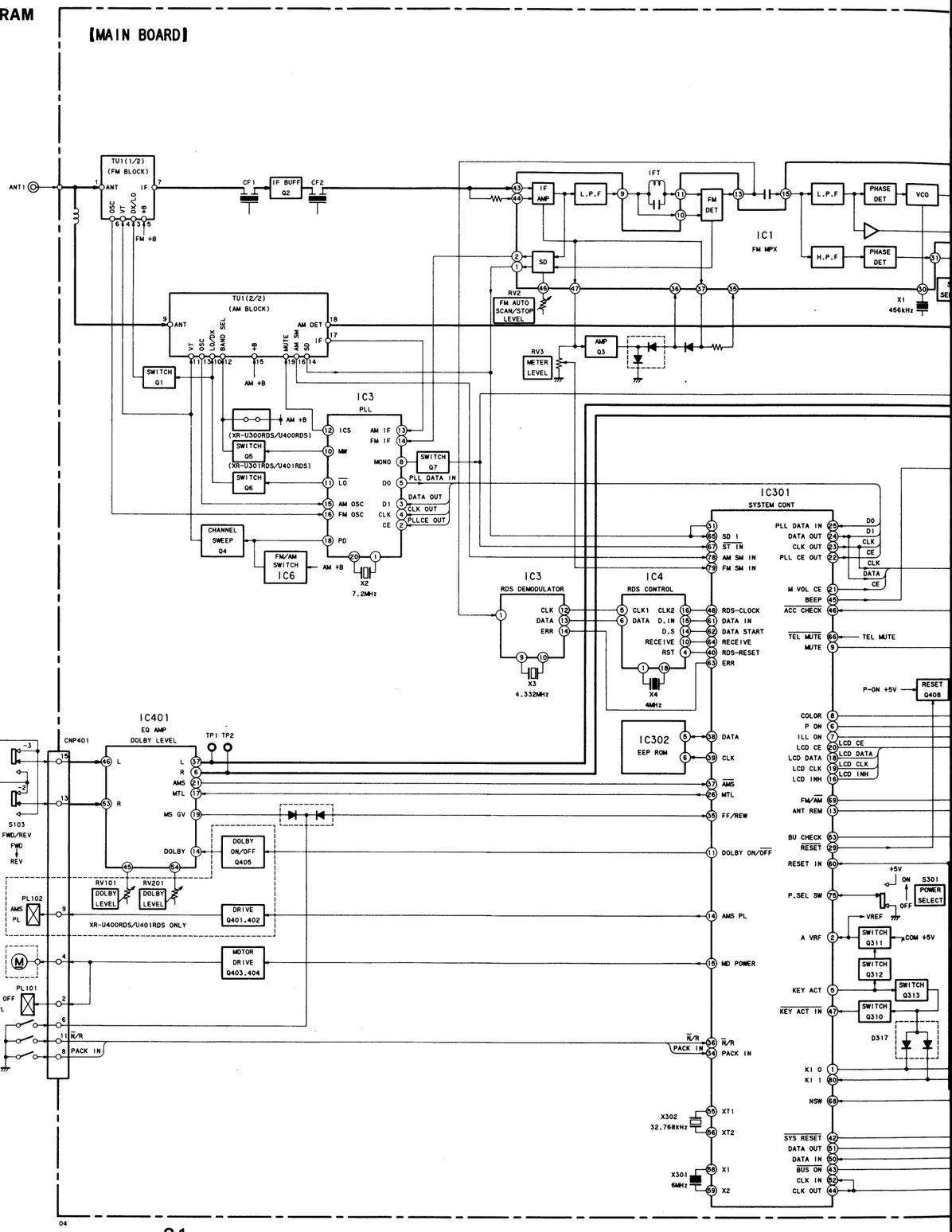
Adjustment Location :



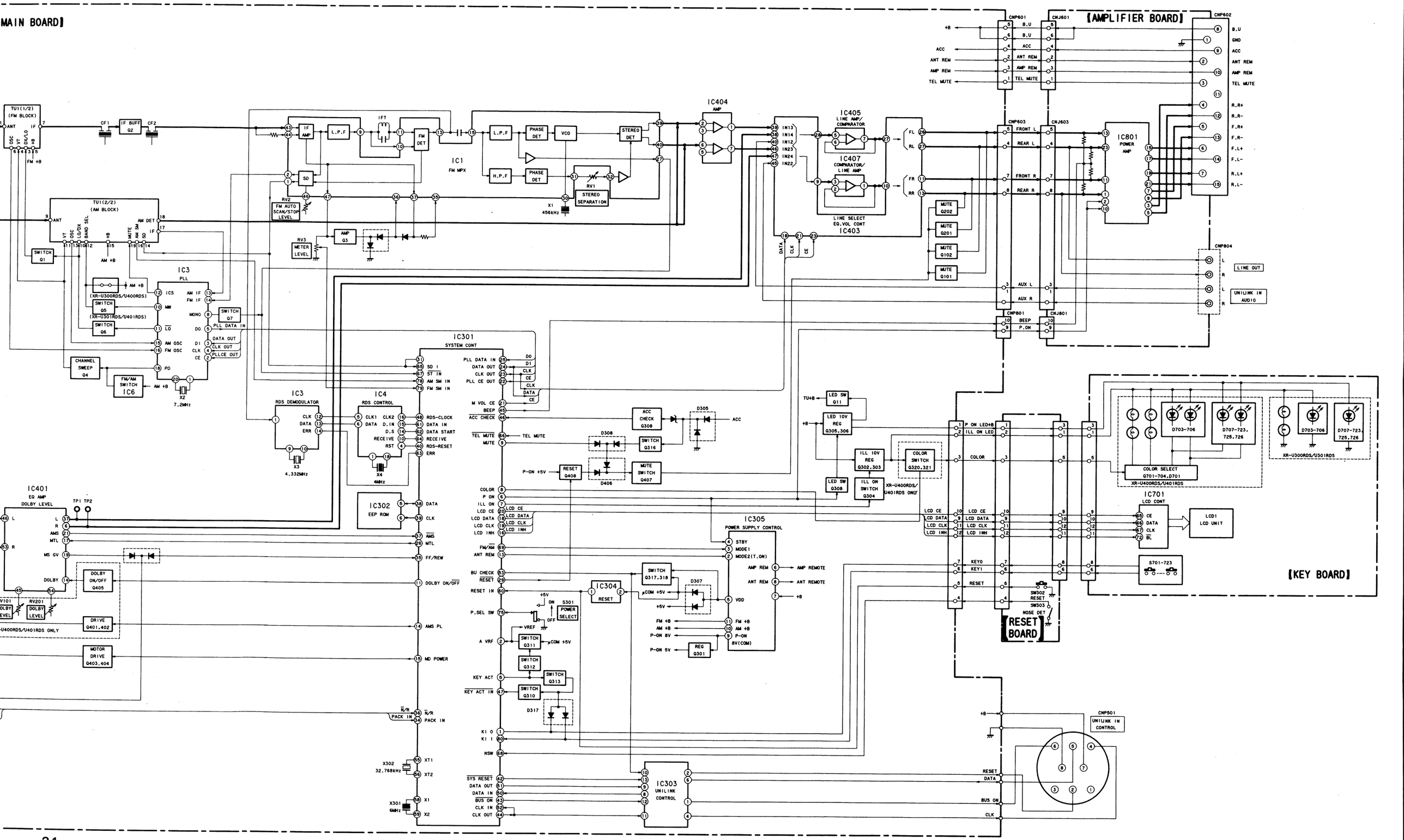


SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM



SECTION 4
DIAGRAMS



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	C-21	IC403	E-6
D2	C-21	IC404	G-6
D3	G-22	IC405	E-6
D4	D-20	IC407	E-7
D5	G-5		
D6	E-22	Q1	E-22
D7	H-19	Q2	F-21
D301	B-14	Q3	G-4
D302	D-14	Q4	I-21
D303	D-14	Q5	F-22
D304	C-16	Q6	H-21
D305	B-16	Q7	H-2
D307	B-8	Q9	D-19
D310	H-13	Q10	D-5
D311	I-14	Q11	H-4
D312	I-14	Q101	C-4
D313	I-14	Q102	C-5
D314	I-14	Q201	C-4
D315	I-14	Q202	C-4
D316	I-13	Q301	B-15
D317	F-15	Q302	D-8
D318	I-14	Q303	D-15
D401	H-17	Q304	D-15
D402	I-19	Q305	D-8
D403	C-6	Q306	D-15
D405	I-7	Q307	D-15
D406	C-6	Q308	B-16
D501	D-13	Q310	G-13
D502	C-13	Q311	F-9
D503	B-13	Q312	F-9
D504	D-13	Q313	F-8
		Q316	B-5
IC1	F-3	Q317	D-13
IC2	C-3	Q318	D-13
IC3	I-2	Q320	H-16
IC4	C-4	Q321	H-16
IC6	H-2	Q401	H-7
IC301	F-9	Q402	H-17
IC302	G-10	Q403	G-16
IC303	D-10	Q404	H-7
IC304	E-10	Q405	G-16
IC305	C-15	Q407	C-6
IC401	H-6	Q408	C-7

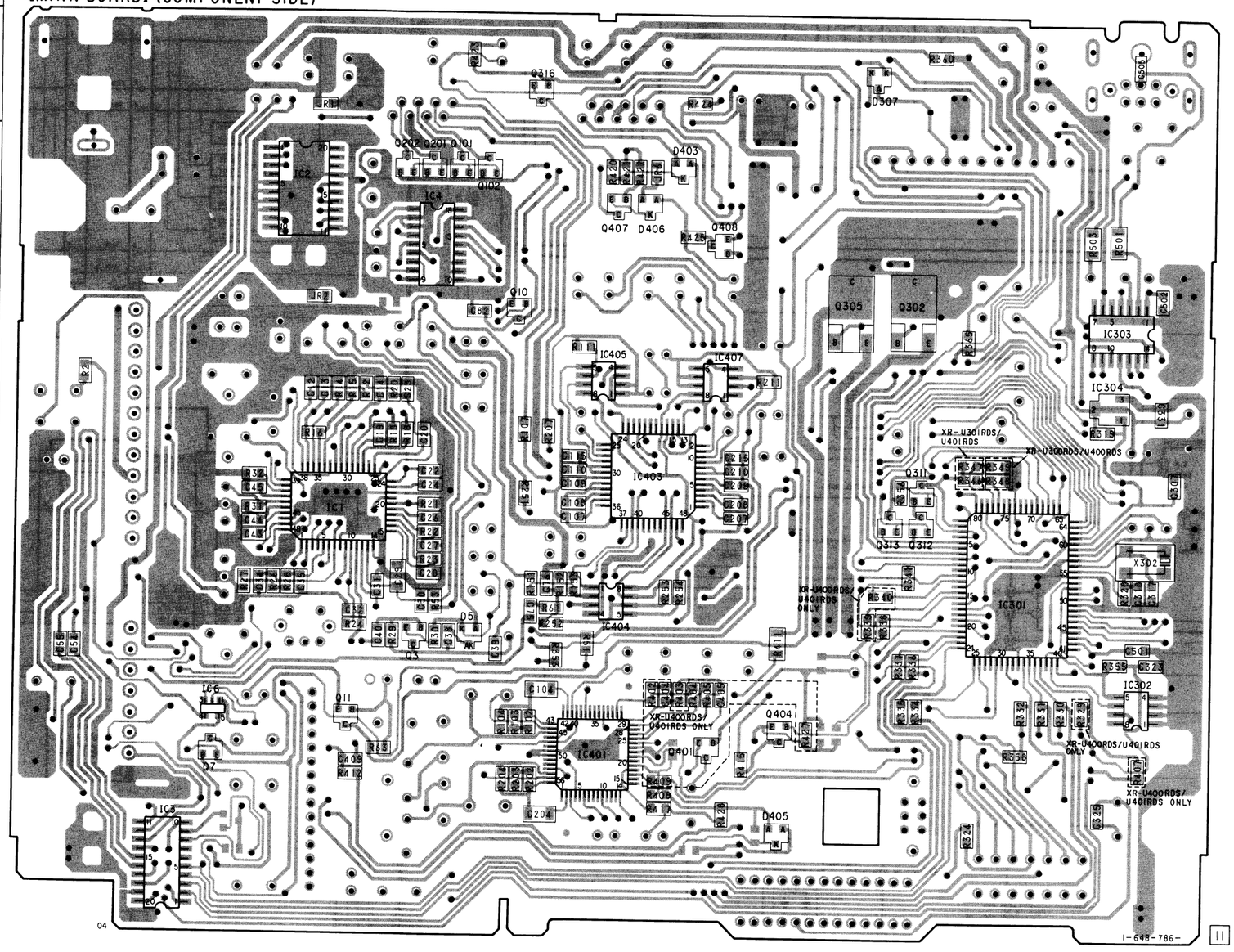
Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.

4-2. PRINTED WIRING BOARDS—MAIN SECTION—

• Refer to page 53 for Semiconductor Lead Layouts.

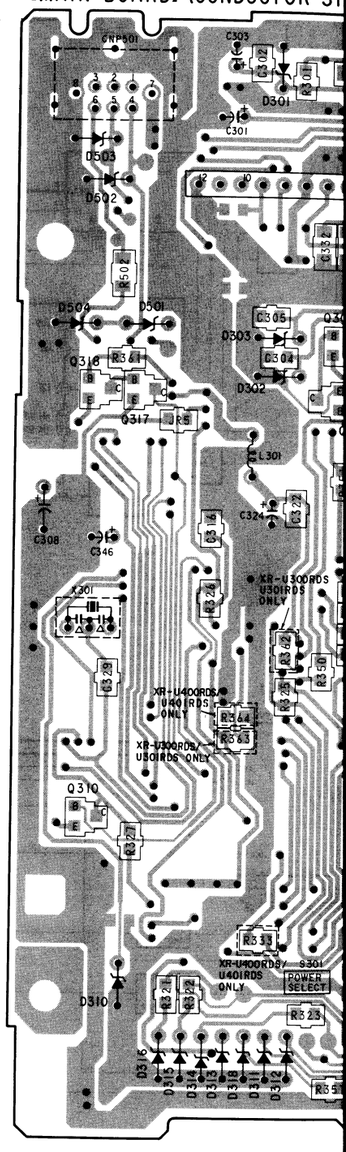
[MAIN BOARD] (COMPONENT SIDE)



CNP501

1	NC
2	RESET
3	N.C
4	CLOCK
5	DATA
6	BUS ON
7	BACK UP
8	GND

[MAIN BOARD] (CONDUCTOR SI



8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

(See page 48.)

(See page 48.)

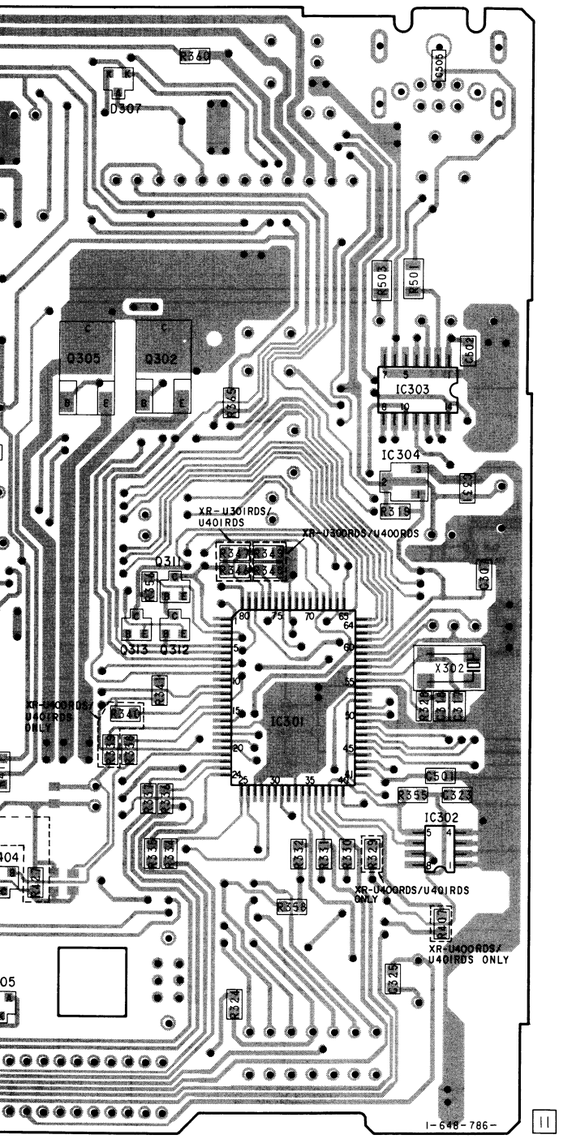
❷ To AMP BOARD CNJ801

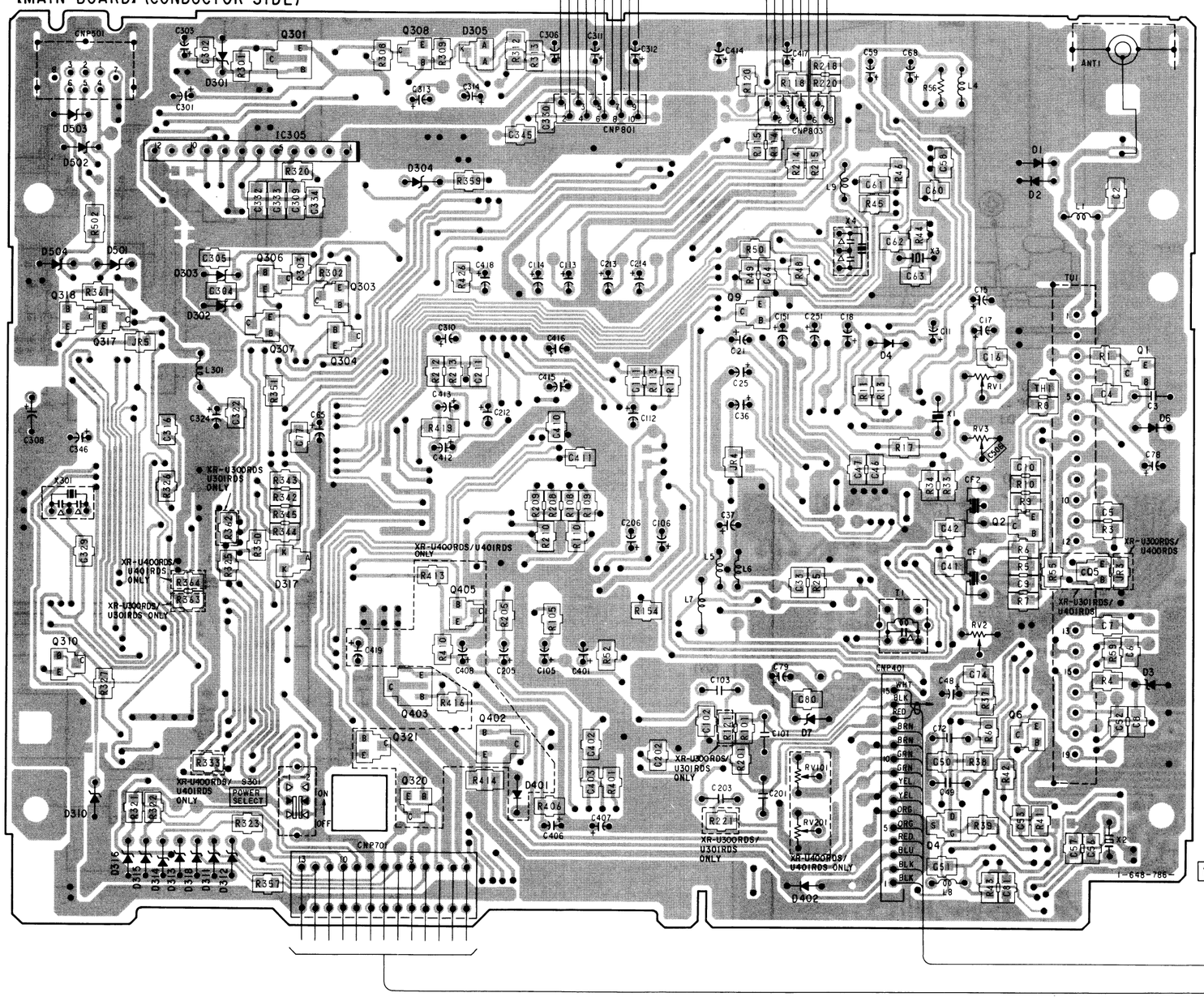
❸ To AMP BOARD CNJ803

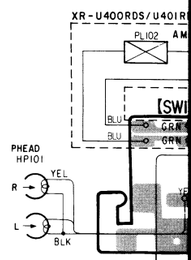
CNP501 UNILINK

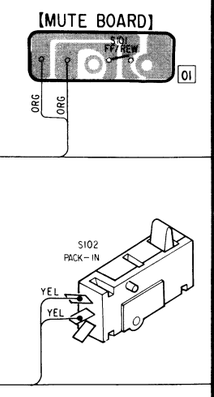
1	N.C
2	RESET
3	N.C
4	CLOCK
5	DATA
6	BUS ON
7	BACK UP
8	GND

[MAIN BOARD] (CONDUCTOR SIDE)







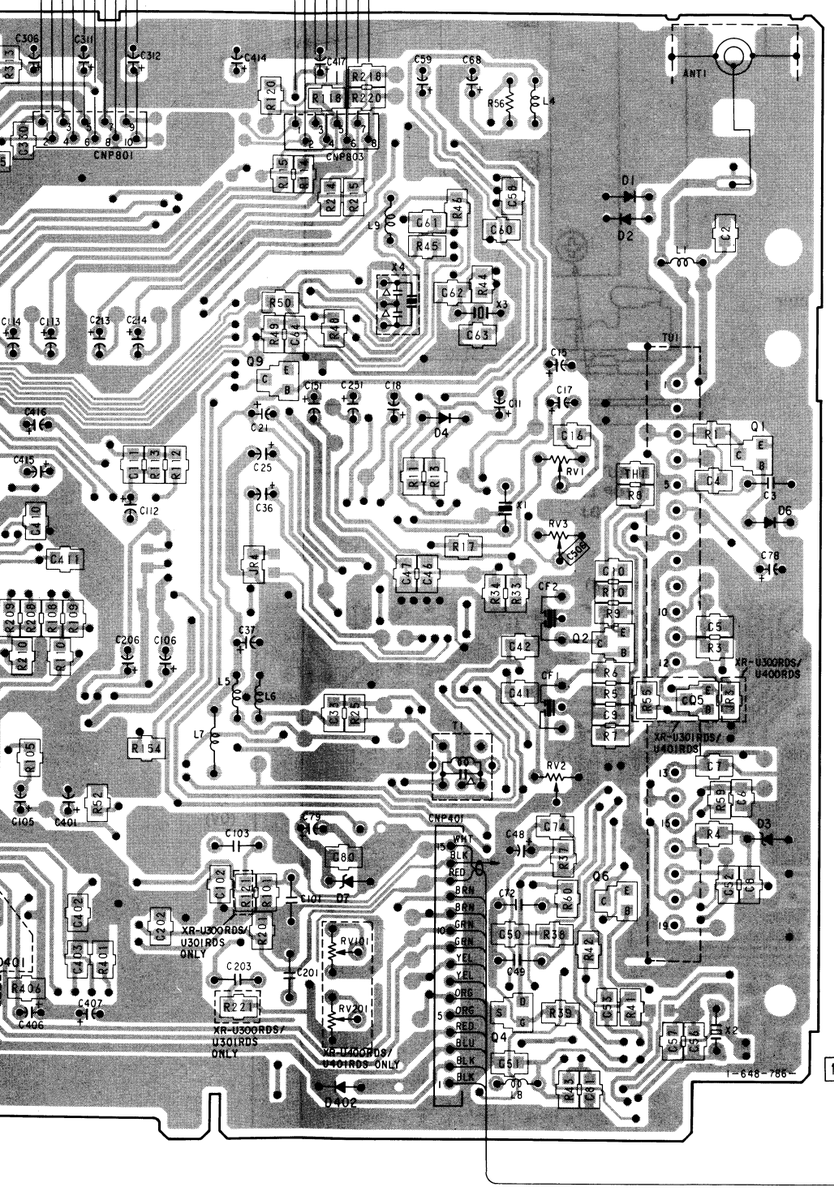


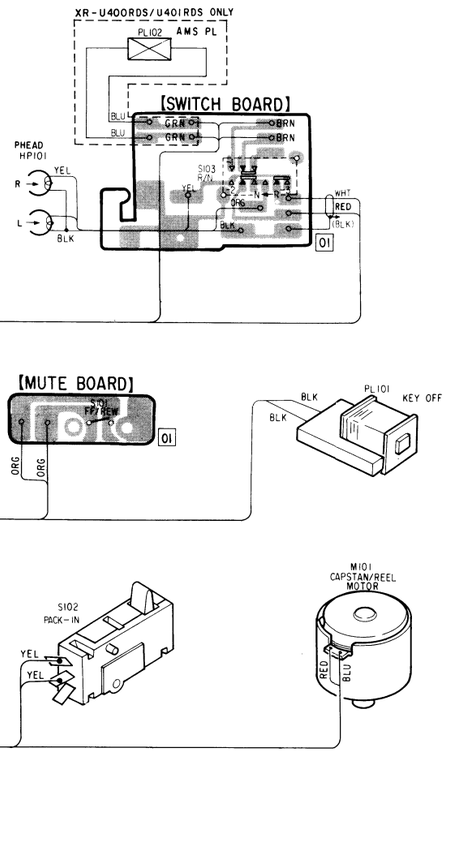
(See page 48.)

❷ To AMP BOARD CNJ801

(See page 48.)

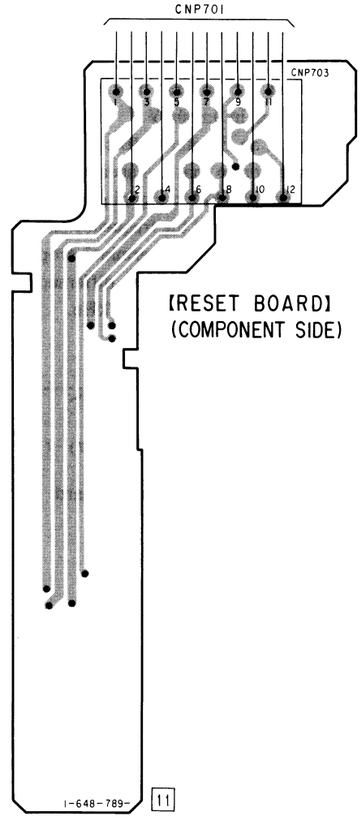
❸ To AMP BOARD CNJ803

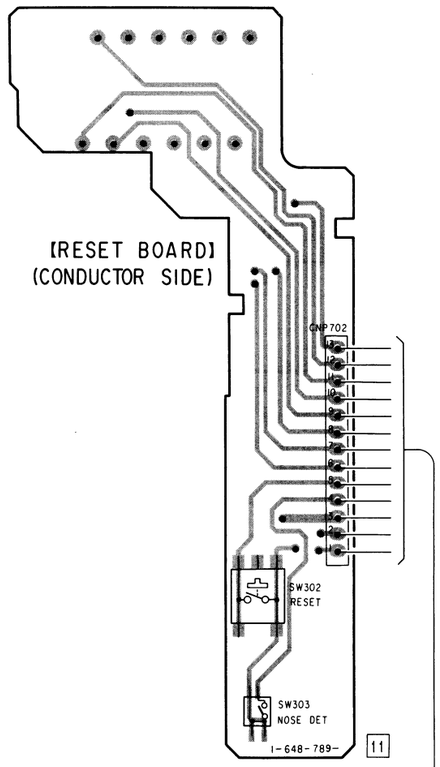




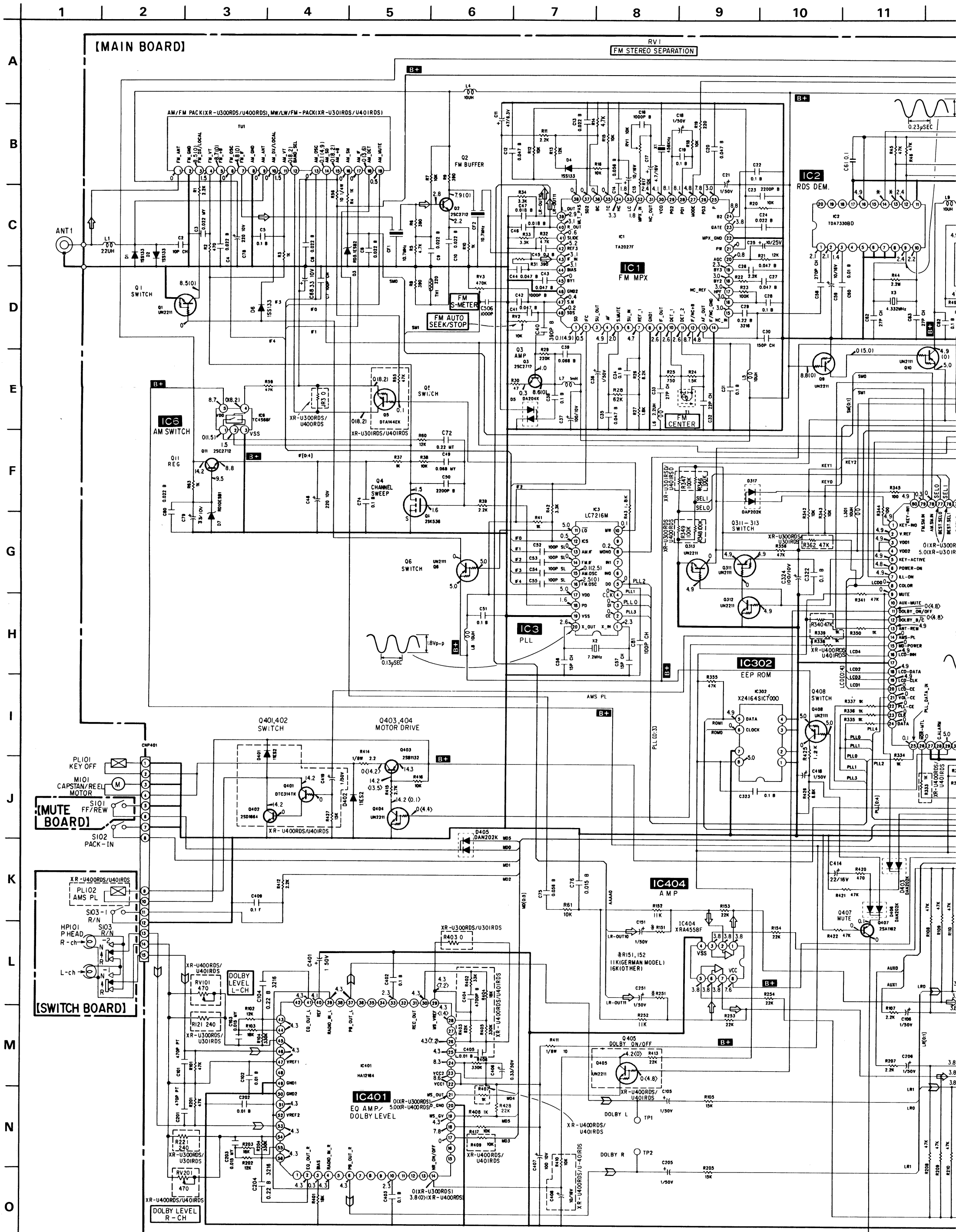
(See page 39, 42.)

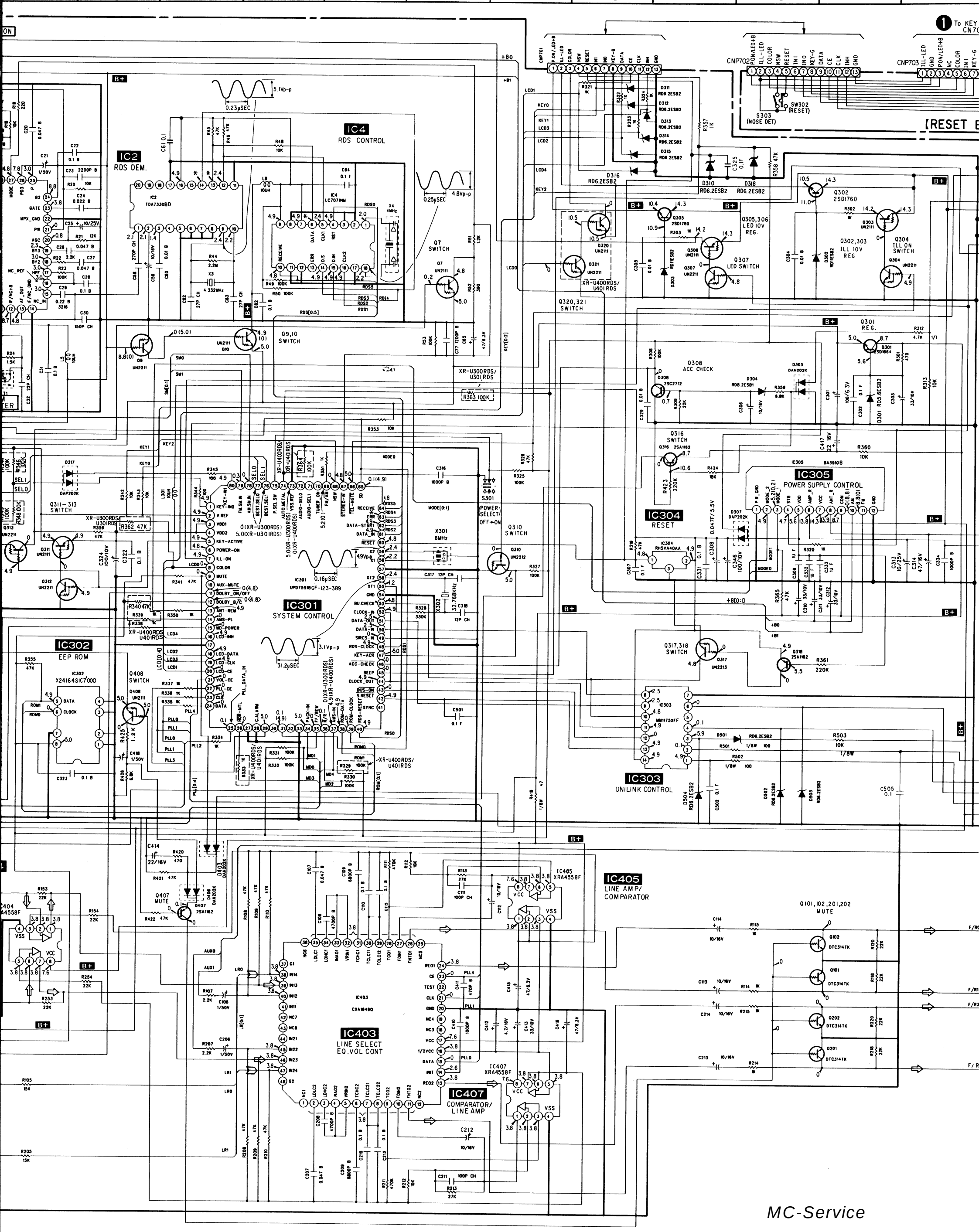
❶ To KEY BOARD CNP701



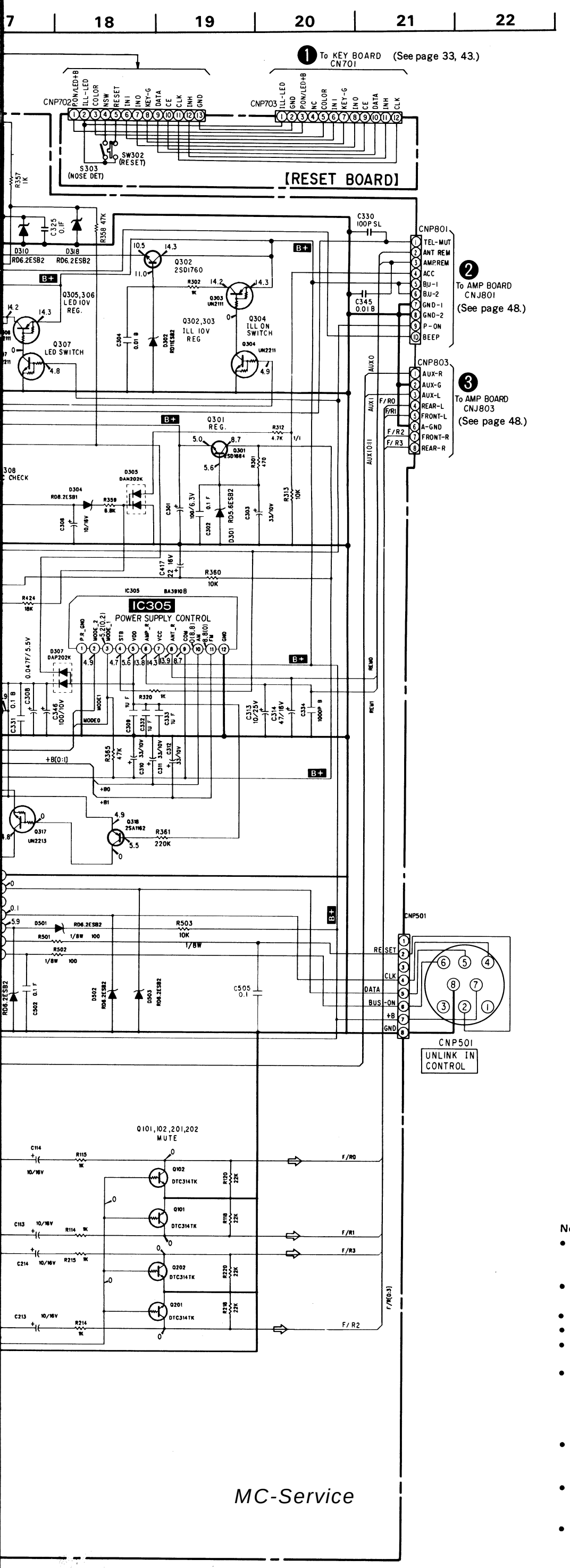


4-3. SCHEMATIC DIAGRAM—MAIN SECTION— • Refer to page 50 for IC Block Diagrams.




IC2
RDS DEM.
TDA7330BD
IC4
RDS CONTROL
LC7071NM
IC301
SYSTEM CONTROL
UPD75518GF-123-3B9
IC302
EEP ROM
X24164SIC-7000
IC303
UNILINK CONTROL
MM1175XFF
IC304
RESET
RH5VA40AA
IC305
POWER SUPPLY CONTROL
BA3910B
IC403
LINE SELECT
EQ.VOL CONT
CXA1846Q
IC405
LINE AMP/
COMPARATOR
XRA4558F
IC407
COMPARATOR/
LINE AMP
XRA4558F
Q7 SWITCH
Q9,10 SWITCH
Q301 REG.
Q302 2SD1760
Q302,303 ILL 10V REG
Q304 ILL ON SWITCH
Q305,306 LED 10V REG.
Q307 LED SWITCH
Q308 ACC CHECK
2SC2712
Q310 SWITCH
Q311-313 SWITCH
Q316 SWITCH
2SA1162
Q317,318 SWITCH
UN2213
Q320,321 SWITCH
Q407 MUTE
2SA1162
Q408 SWITCH
Q101,102,201,202 MUTE
DTC314TK
S303 (NOSE DET)
SW302 (RESET)
S301 (POWER SELECT/ OFF→ON)
X301 6MHz
X302 32.768KHz
X3 4.332MHz
X4 4MHz
XR-U300RDS/ U301RDS
XR-U400RDS/ U401RDS
B+
+B0
+B1
+B[0:1]
LCD1
KEY0
KEY1
LCD3
LCD2
LCD4
KEY2
LCD0
SW0
SW1
SW[0:1]
KEY[0:2]
MODE0
MODE1
MODE[0:1]
LCD[0:4]
PLL[0:4]
ROM[0:1]
RDS[0:5]
AUX0
AUX1
LR0
LR1
LR[0:1]
PLL_DATA_IN
To KEY
CN70
CNP701
CNP702
CNP703
[RESET E

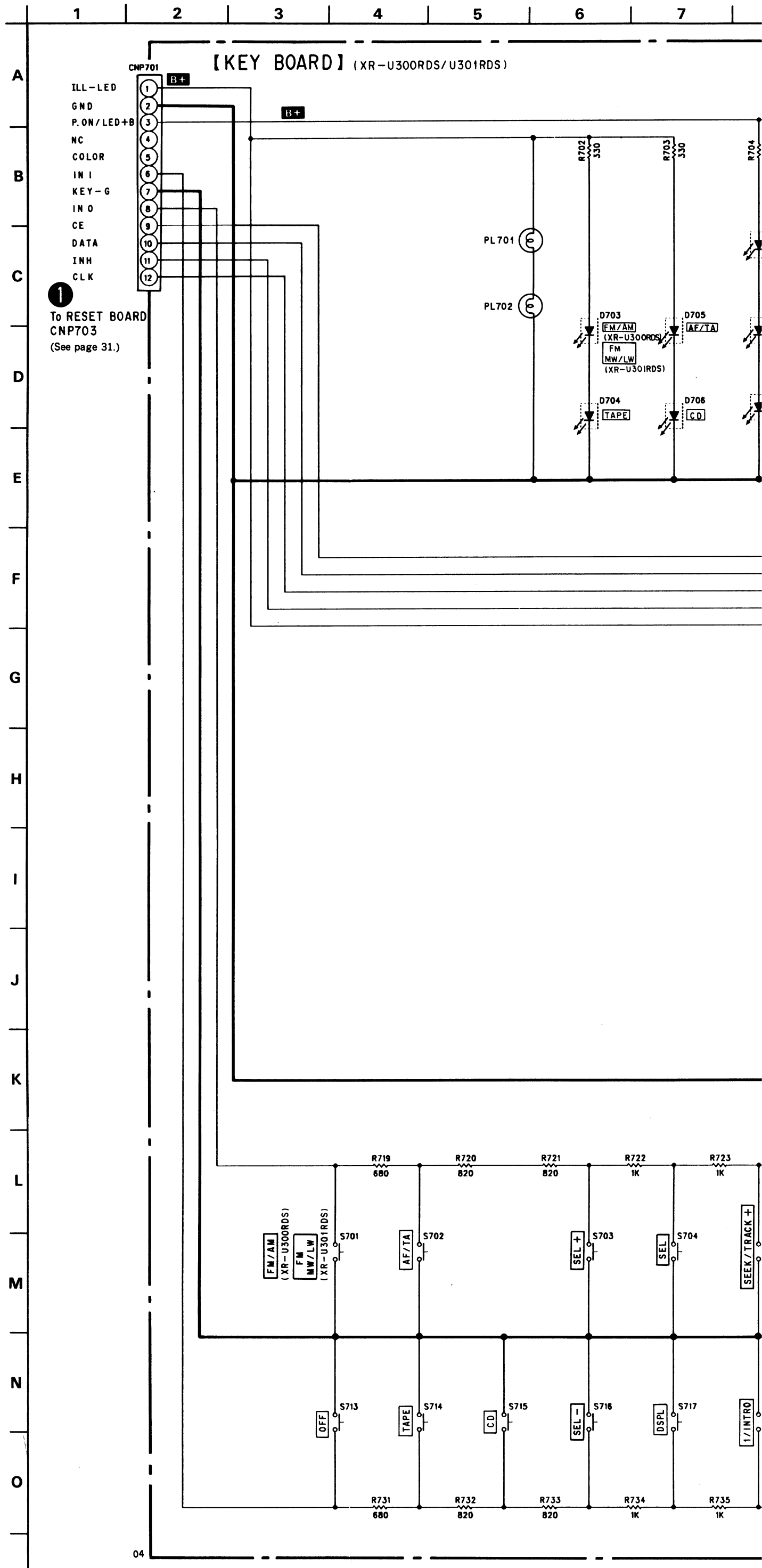
MC-Service



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from BACK UP and ACC terminals.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM or MW
  〈 〉 : PB
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : PB

4-4. SCHEMATIC DIAGRAM—PANEL SECTION (XR-U300RDS/U301RDS)—



MC-Service

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Power voltage is dc 14.4V and fed with regulated dc power supply from BACK UP and ACC terminals.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

6 7 8 9 10 11 12 13 14 15 16

DS)

D703–723, 725, 726
CL–150PG–CD (GREEN)
CL–150Y–CD (AMBER)

B+

R702 330 R703 330 R704 220 R705 220 R706 330 R707 330 R708 330 R709 330 R710 330 R741 330 R742 910 R743 910

PL701 PL702

D707 SENS LOUD | D710 MUTE | D713 | D716 6 | D719 5 | D722 BANK 4 | D725 SEL | D715 | D721 DSPL

MANU DISC

D703 FM/AM (XR-U300RDS) FM MW/LW (XR-U301RDS) | D705 AF/TA | D708 | D711 | D714 | D717 SHUF 3 | D720 REPEAT 2 | D723 INTRO 1 | D726 FILE | D718 BTM

D704 TAPE | D706 CD | D709 | D712 OFF

R711 470 | D702 DTZ5.1C | C701 0.22 B | R713 47K | R712 100K | C702 0.01 B | C703 470P B | R714 1K | R715 1K | R716 1K

LCD[27:65]

LCD34 64 63 62 SEG61

	64	SYNC
0	65	CE
4.9	66	DATA
4.9	67	CLK
2.7	68	OSC
5.3	69	SEL
	70	2/3
	71	LT
4.8	72	BL
5.3	73	VDD
3.6	74	VLC1
1.8	75	VLC2
	76	VLC3
	77	GND
LCD33 2.7	78	COM1
LCD32 2.7	79	COM2
LCD31 2.7	80	COM3
		SEG0 SEG1 SEG2
	1 2 3	

COM-OUT

LCD30 LCD29 LCD28

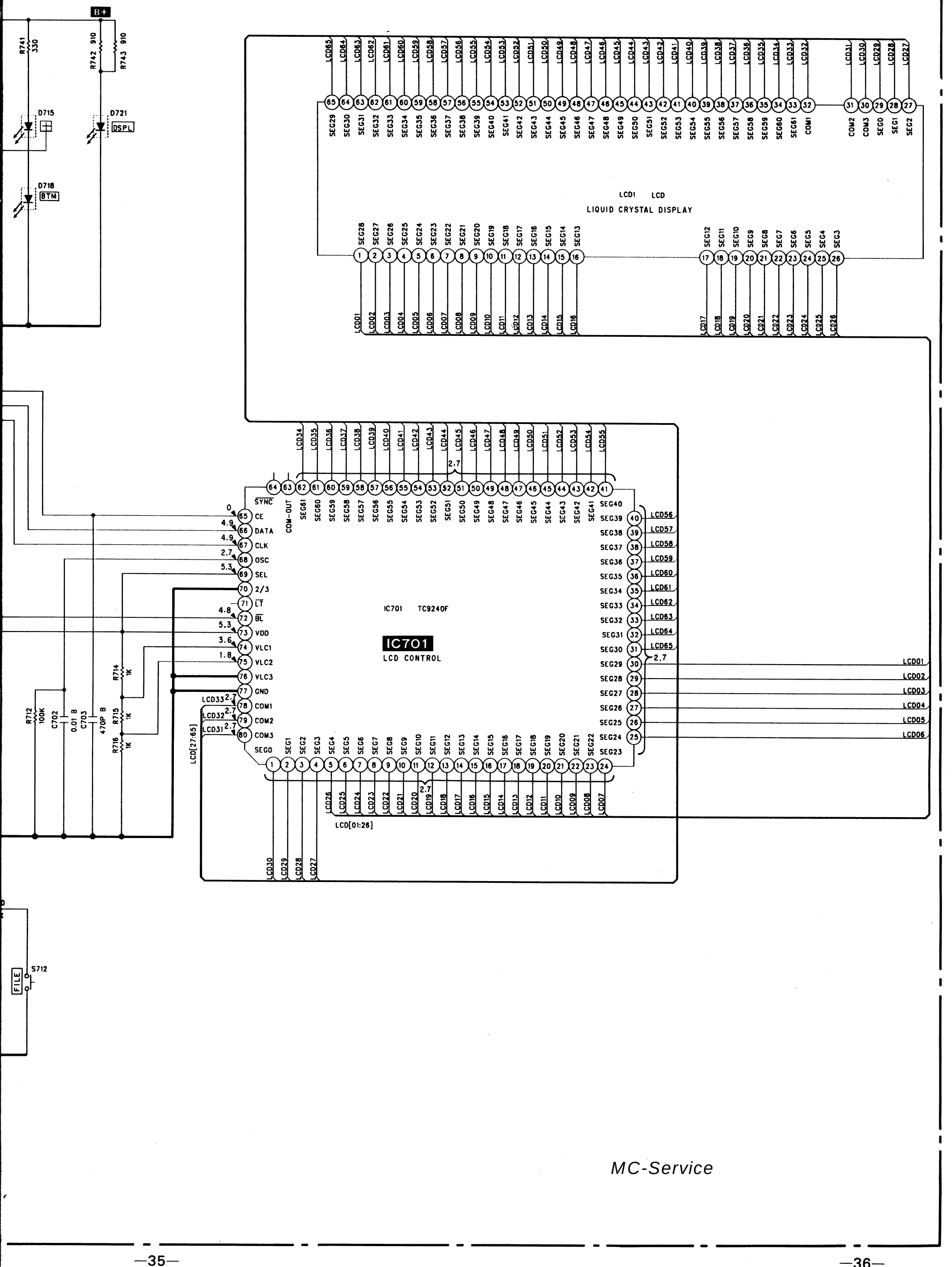
R721 820 | R722 1K | R723 1K | R724 1.5K | R725 1.5K | R726 2.4K | R727 2.7K | R728 3.9K | R729 5.6K | R730 8.2K

S703 SEL + | S704 SEL | S705 SEEK/TRACK + | S706 SEEK/TRACK – | S707 MANU/DISC + | S708 MANU/DISC – | S709 MUTE | S710 SENS/LOUD | S711 BTM | S712 FILE

S715 CD | S716 SEL – | S717 DSPL | S718 1/INTRO | S719 2/REPEAT | S720 3/SHUF | S721 4/BANK | S722 5 | S723 6

R733 820 | R734 1K | R735 1K | R736 1.5K | R737 1.5K | R738 2.4K | R739 2.7K | R740 3.9K

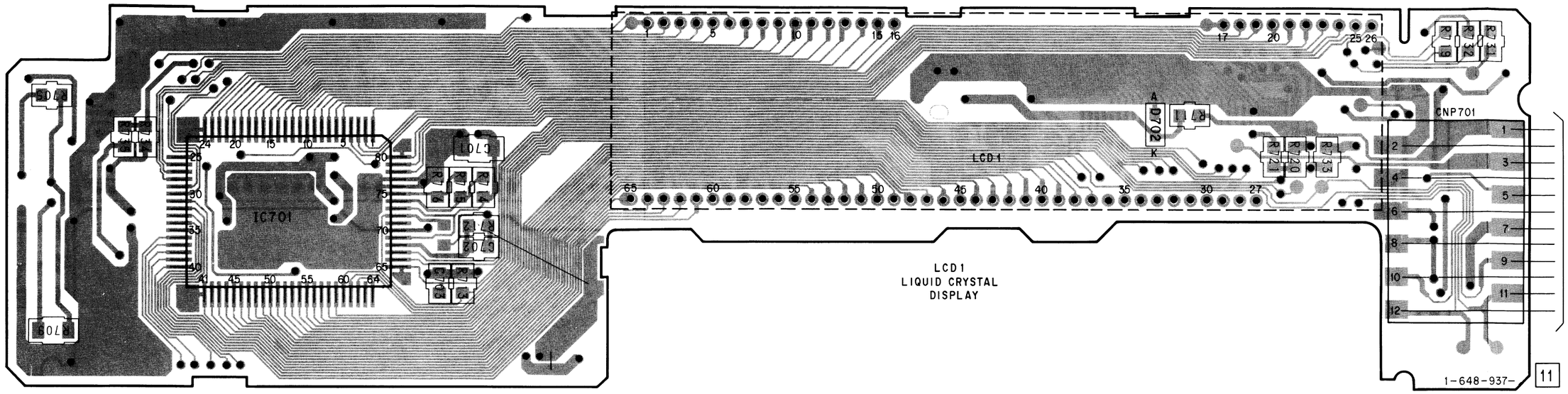
MC-Service


B+
R741 330
R742 910
R743 910
D715
D721
DSPL
D718
BTM
LCD1 LCD
LIQUID CRYSTAL DISPLAY
IC701 TC9240F
IC701
LCD CONTROL
SYNC
CE
DATA
CLK
OSC
SEL
2/3
LT
BL
VDD
VLC1
VLC2
VLC3
GND
COM1
COM2
COM3
SEG0
COM-OUT
R712 100K
C702 0.01 B
C703 470P B
R714 1K
R715 1K
R716 1K
LCD[27:65]
LCD[01:26]
S712
FILE

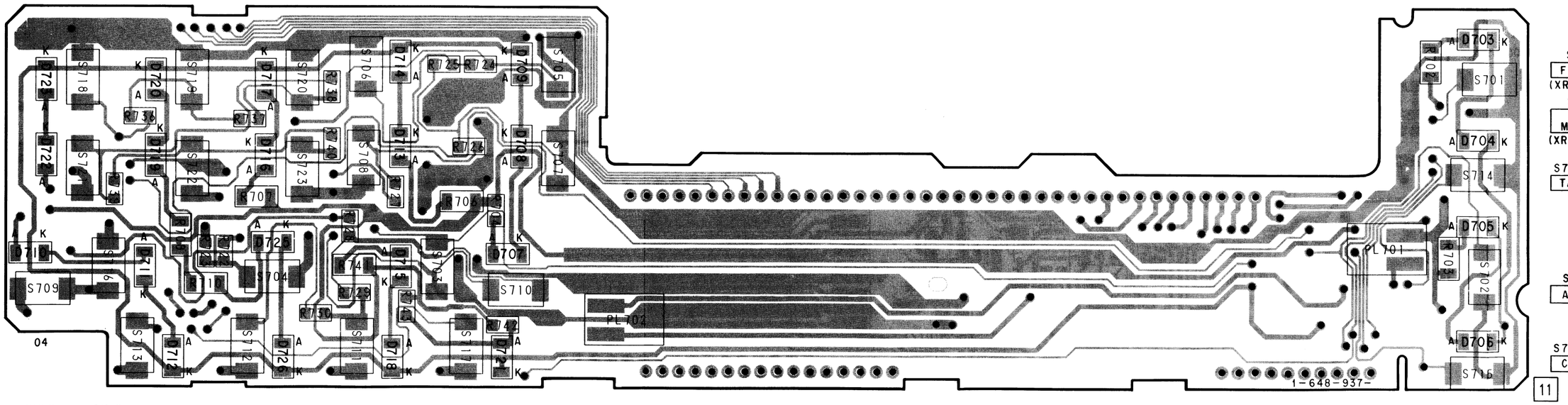
MC-Service

• Refer to page 53 for Semiconductor Lead Layouts.

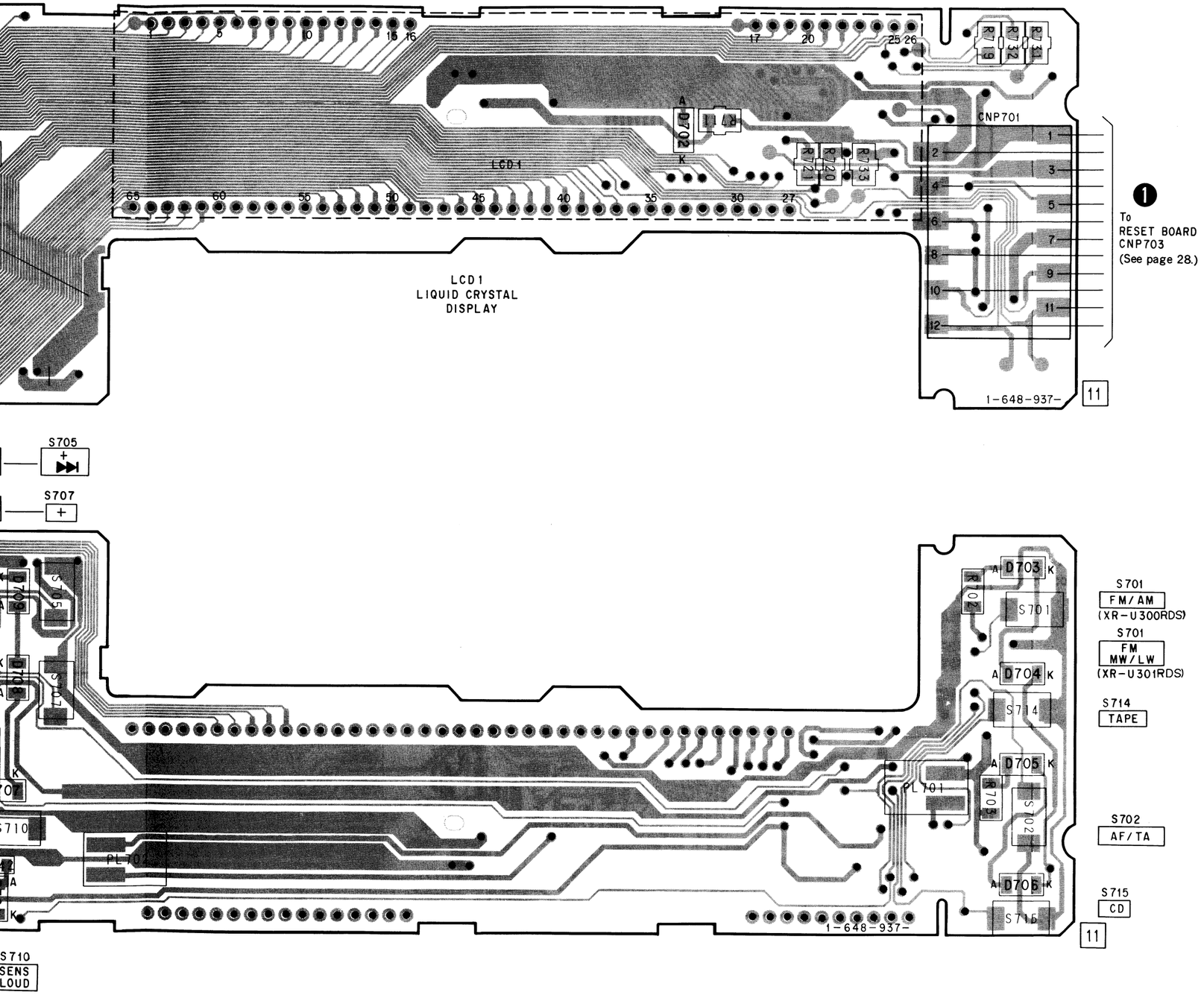
【KEY BOARD】
(SIDE B)
(FOR XR-U300RDS/U301RDS)



【KEY BOARD】
(SIDE A)
(FOR XR-U300RDS/U301RDS)



5	6	7	8	9	10	11	12



• Semiconductor Location

Ref. No.	Location
D702	B-9
D703	E-11
D704	E-11
D705	F-11
D706	G-11
D707	F-5
D708	E-5
D709	E-5
D710	F-2
D711	F-3
D712	G-3
D713	E-4
D714	E-4
D715	F-4
D716	E-3
D717	E-3
D718	G-4
D719	E-3
D720	E-3
D721	G-5
D722	E-2
D723	E-2
D725	F-3
D726	G-3
IC701	B-3

Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.

• Refer to page 53 for Semiconductor Lead Layouts.

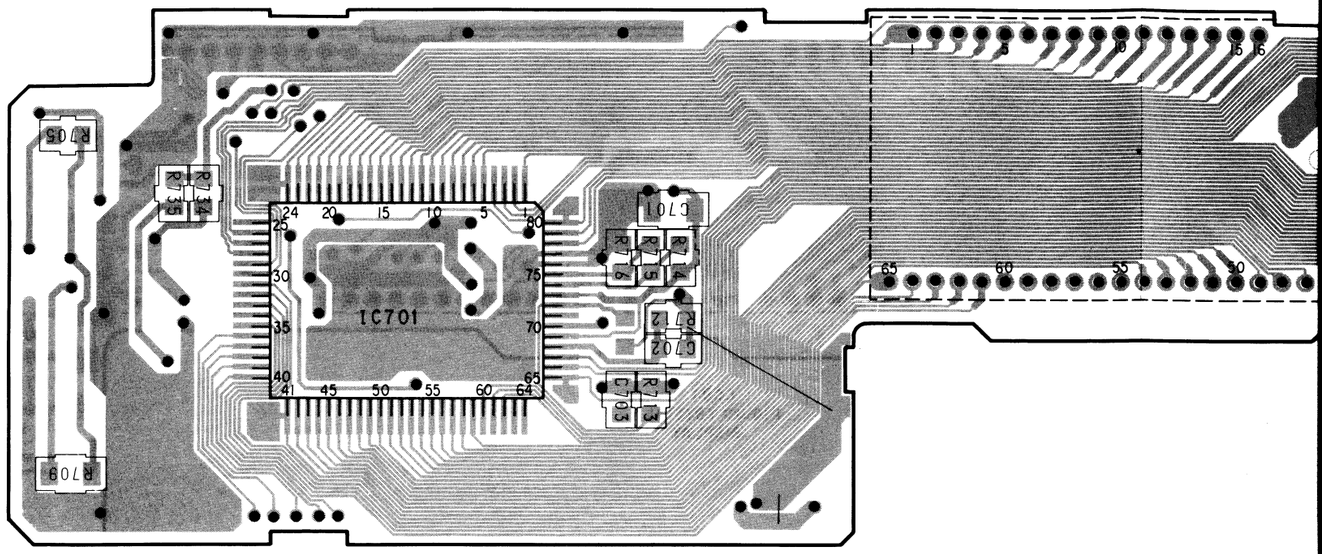
• **Semiconductor Location**

Ref. No.	Location
D701	B-9
D702	B-8
D703	E-11
D704	E-11
D705	F-11
D706	F-11
D707	F-5
D708	E-5
D709	E-5
D710	F-2
D711	F-2
D712	G-3
D713	E-4
D714	E-4
D715	F-4
D716	E-3
D717	E-3
D718	G-4
D719	E-3
D720	E-3
D721	G-5
D722	E-2
D723	E-2
D725	F-3
D726	G-3
IC701	B-3
Q701	B-8
Q702	B-9
Q703	B-10
Q704	B-10

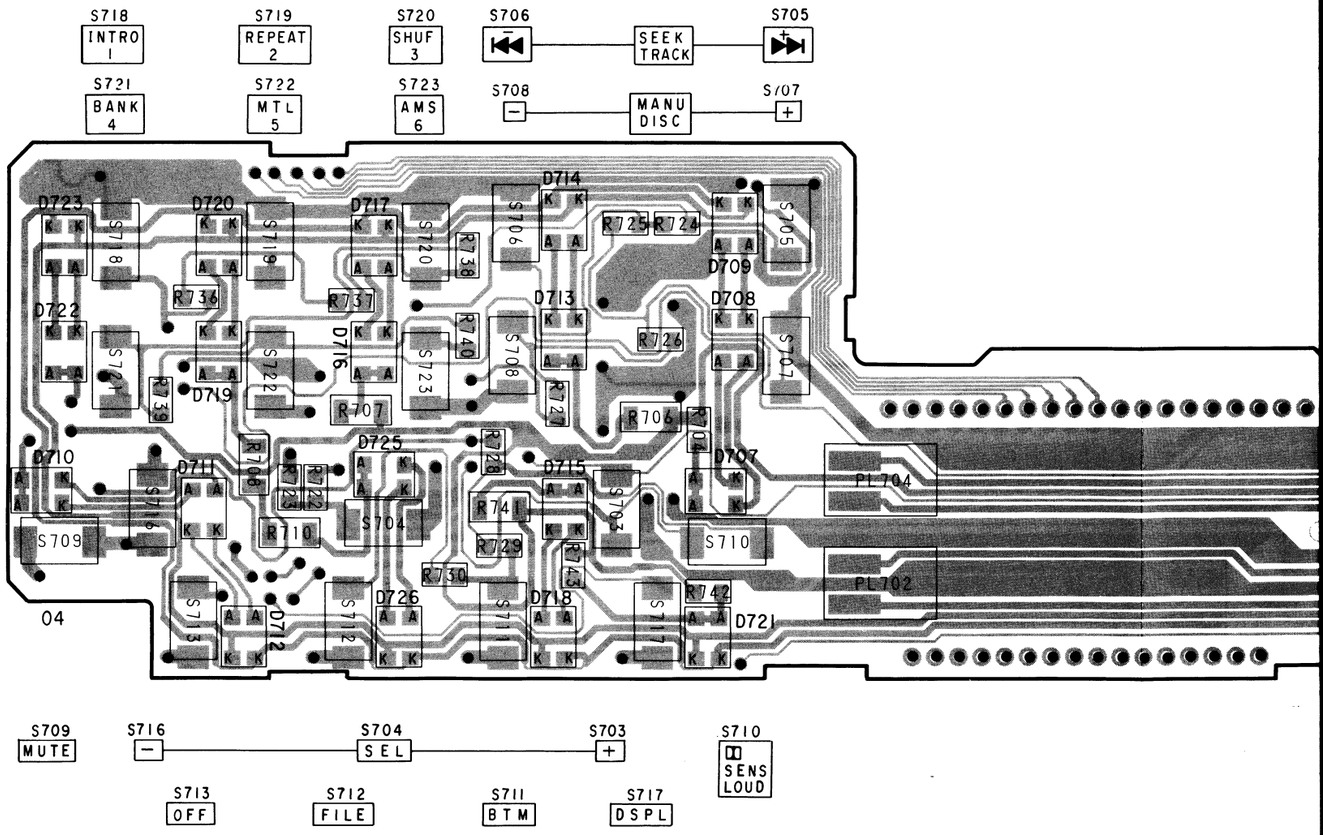
Note:

- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.

【KEY BOARD】
(SIDE B)
(FOR XR-U400RDS/U401RDS)



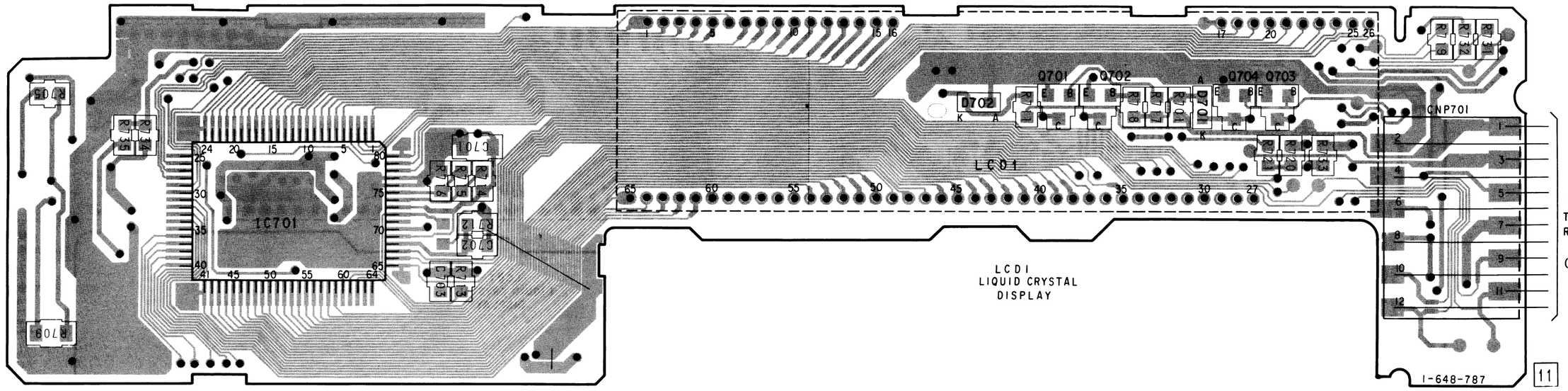
【KEY BOARD】
(SIDE A)
(FOR XR-U400RDS/U401RDS)



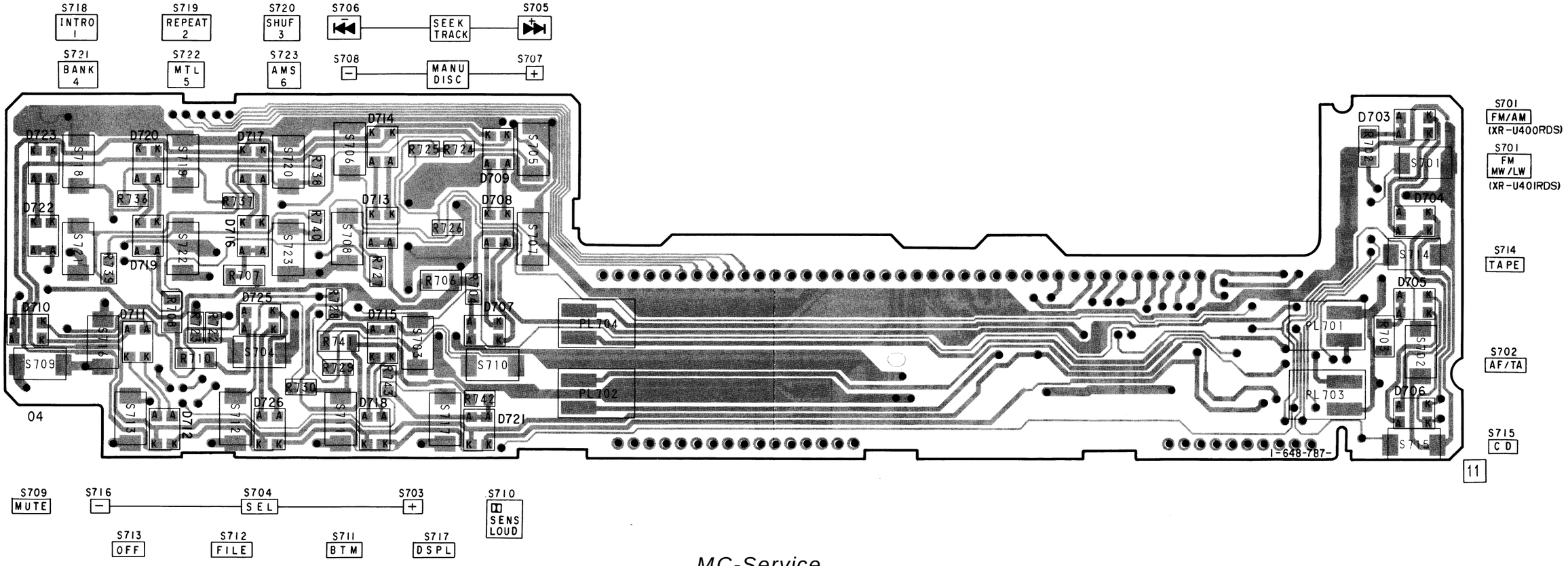
S709 MUTE
S716 (−)
S704 SEL
S703 (+)
S710 SENS LOUD
S713 OFF
S712 FILE
S711 BTM
S717 DSPL

1	2	3	4	5	6	7	8	9	10	11	12

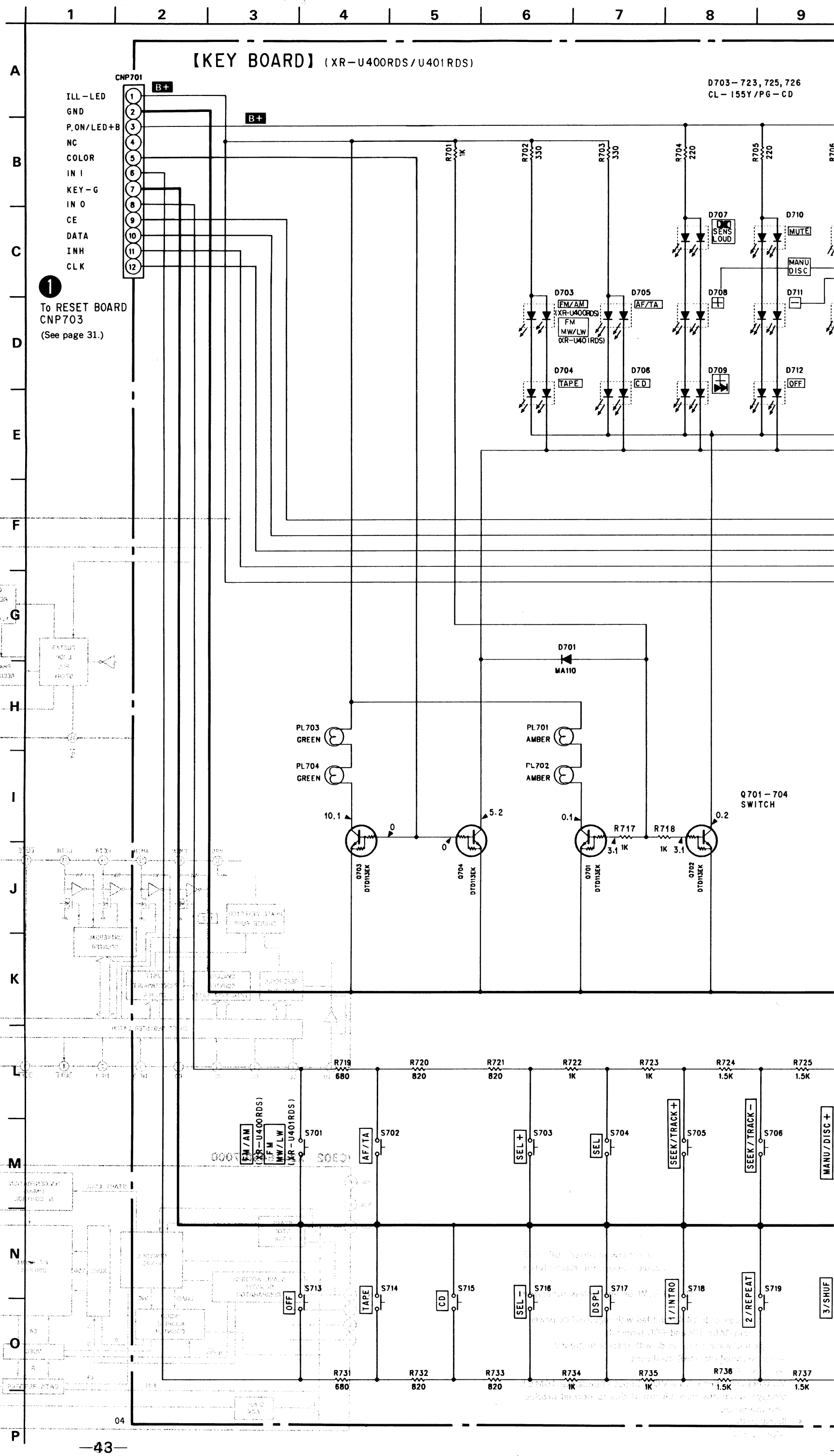
【KEY BOARD】
(SIDE B)
(FOR XR-U400RDS/U401RDS)



【KEY BOARD】
(SIDE A)
(FOR XR-U400RDS/U401RDS)



4-7. SCHEMATIC DIAGRAM—PANEL SECTION



D703–723, 725, 726
CL–155Y/PG–CD

B+

R705 220 R706 330 R707 330 R708 330 R709 330 R710 330 R741 330 R742 910 R743 910

D707 SENS LOUD D710 MUTE D713 D716 AMS 6 D719 MTL 5 D722 BANK 4 D725 SEL D715 D721 DSPL

MANU DISC

D708 D711 D714 D717 SHUF 3 D720 REPEAT 2 D723 INTRO 1 D726 FILE D718 BTM

D709 D712 OFF

Q701–704
SWITCH

0.2

DTD113EK

R711 470

D702 DTZ5.1C

C701 0.22 B

R713 47K

R712 100K

C702 0.01 B

C703 470P B

R714 1K R715 1K R716 1K

LCD[27:65]

IC701 TC9240F

IC701
LCD CONTROL

SYNC
COM-OUT
CE
DATA
CLK
OSC
SEL
2/3
LT
BL
VDD
VLC1
VLC2
VLC3
GND
COM1
COM2
COM3
SEG0

LCD[01:26]

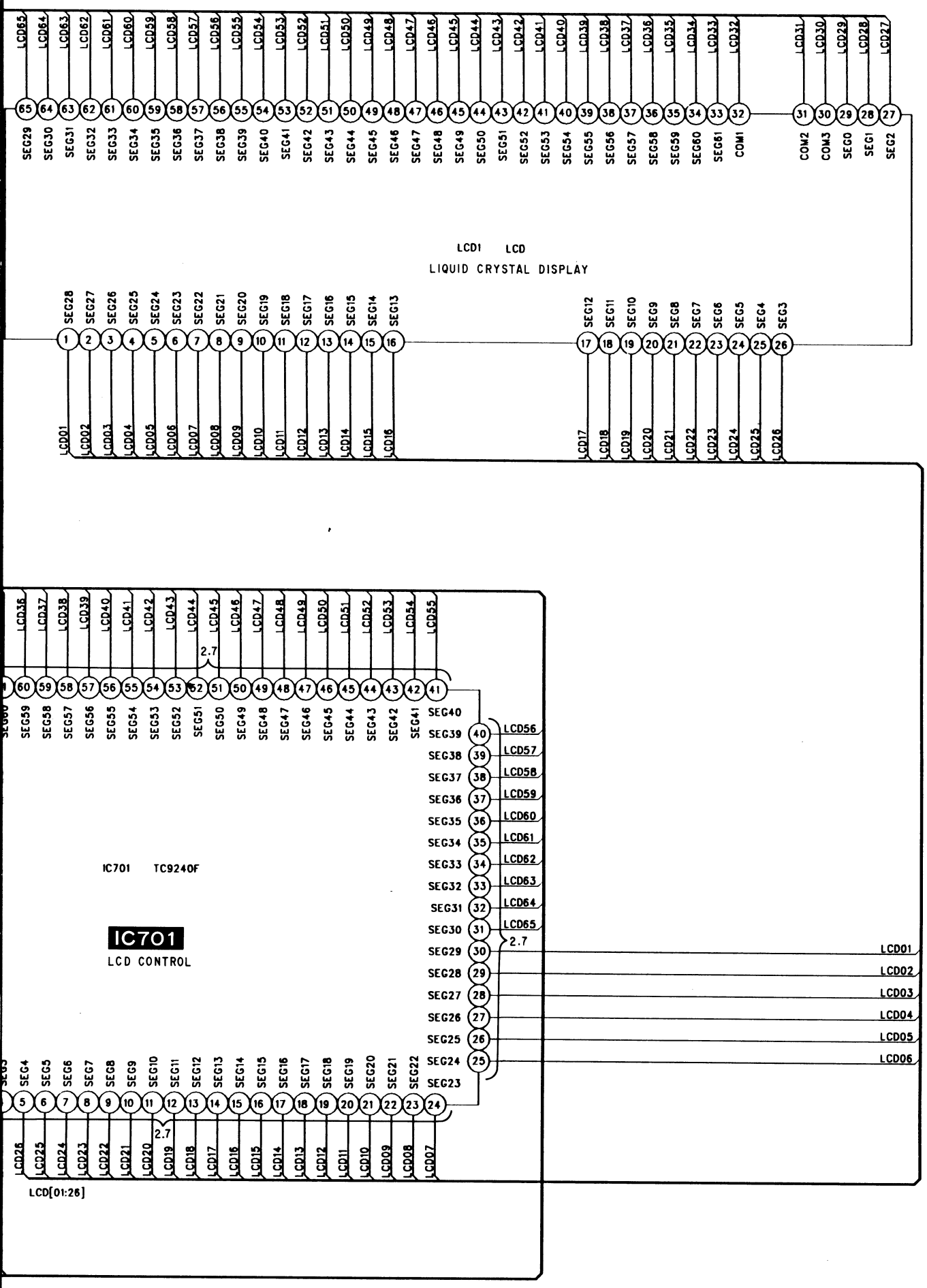
R724 1.5K R725 1.5K R726 2.4K R727 2.7K R728 3.9K R729 5.6K R730 8.2K

S706 SEEK/TRACK– S707 MANU/DISC+ S708 MANU/DISC– S709 MUTE S710 00/SENS/LOUD S711 BTM S712 FILE

S719 2/REPEAT S720 3/SHUF S721 4/BANK S722 5/MTL S723 6/AMS

R736 1.5K R737 1.5K R738 2.4K R739 2.7K R740 3.9K

MC-Service

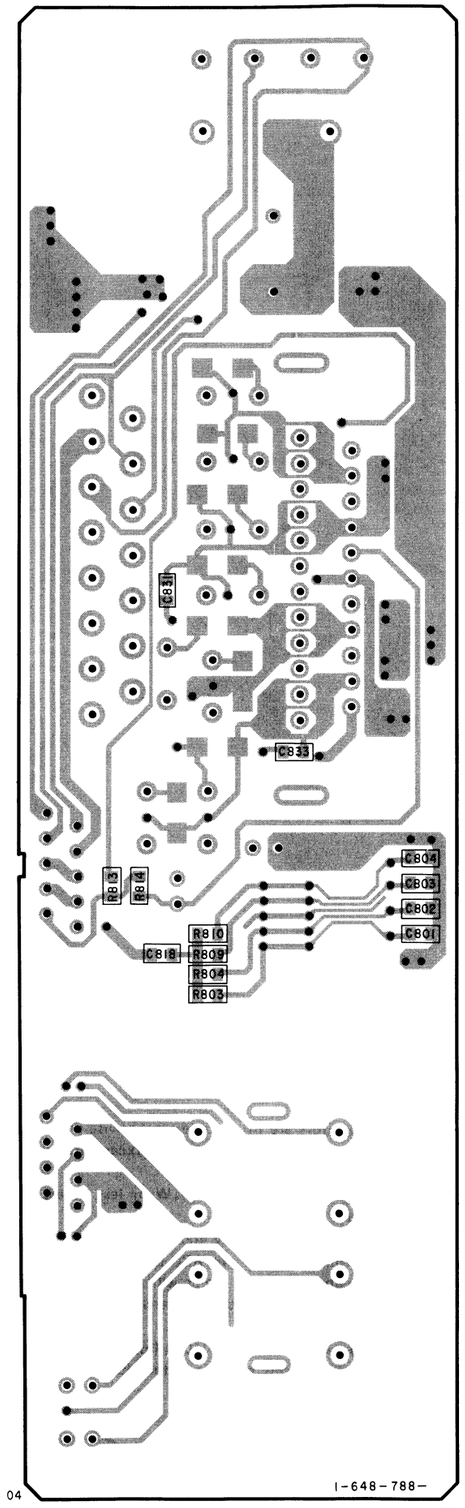


Note:

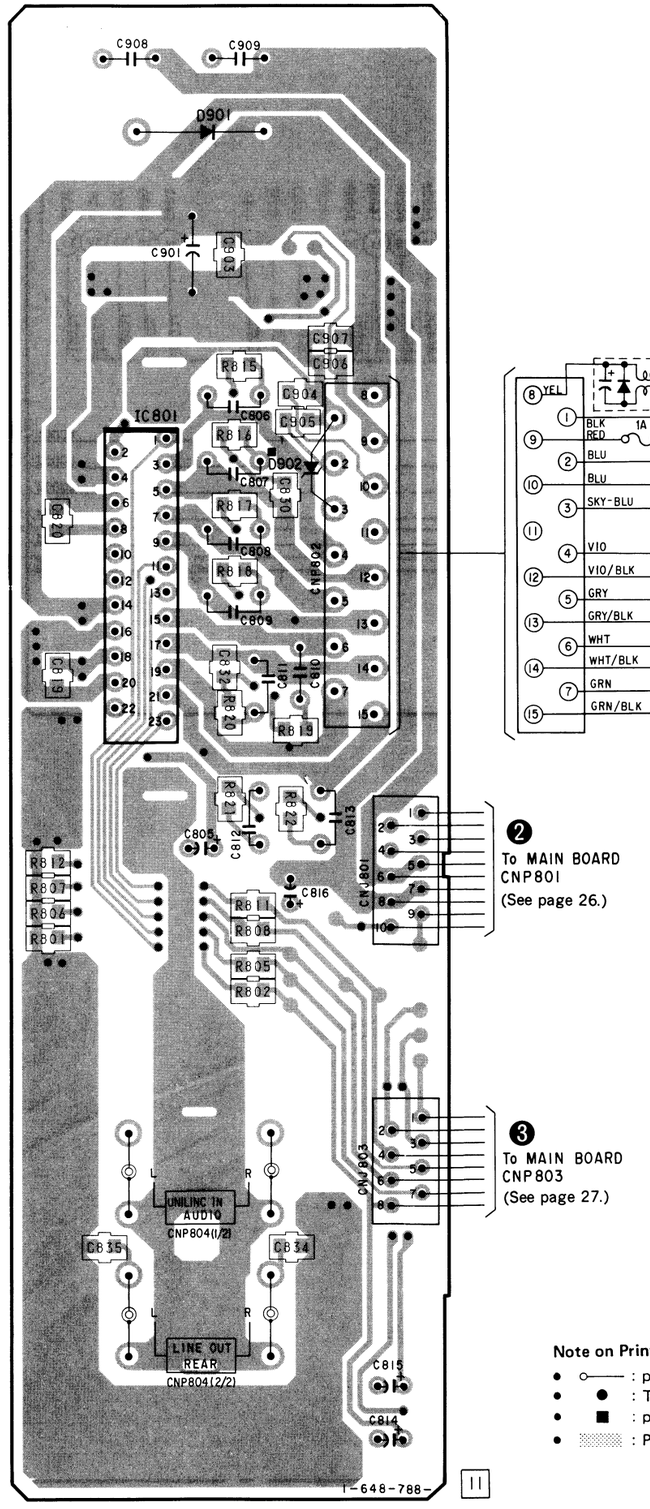
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- Power voltage is dc 14.4V and fed with regulated dc power supply from BACK UP and ACC terminals.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

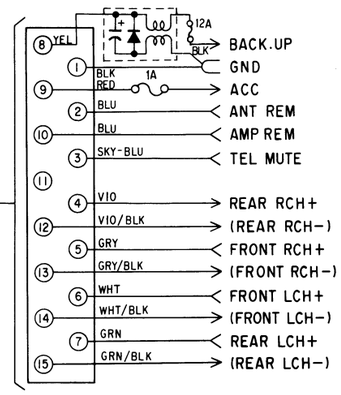
MC-Service

【AMPLIFIER BOARD】(COMPONENT SIDE)



【AMPLIFIER BOARD】(CONDUCTOR SIDE)





❷ To MAIN BOARD CNP801 (See page 26.)

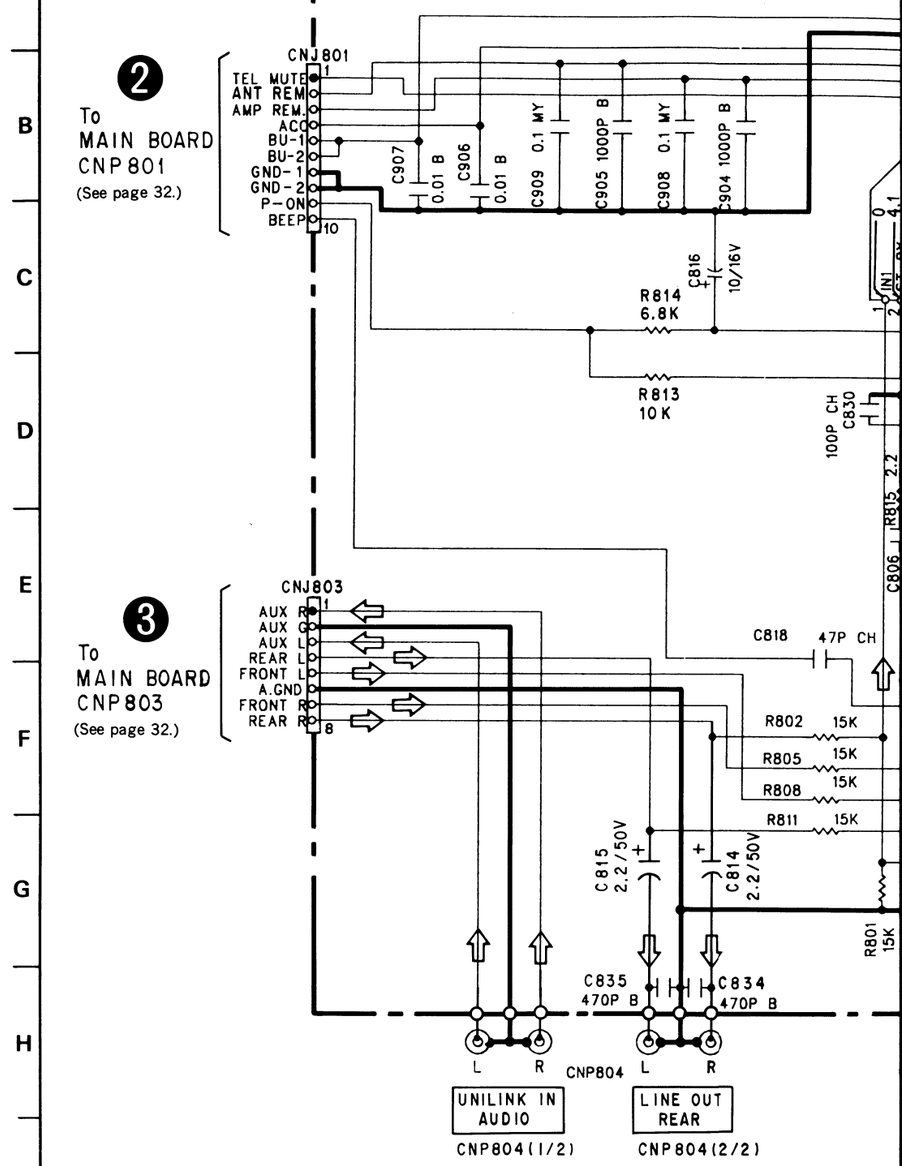
❸ To MAIN BOARD CNP803 (See page 27.)

Note on Printed Wiring Board:

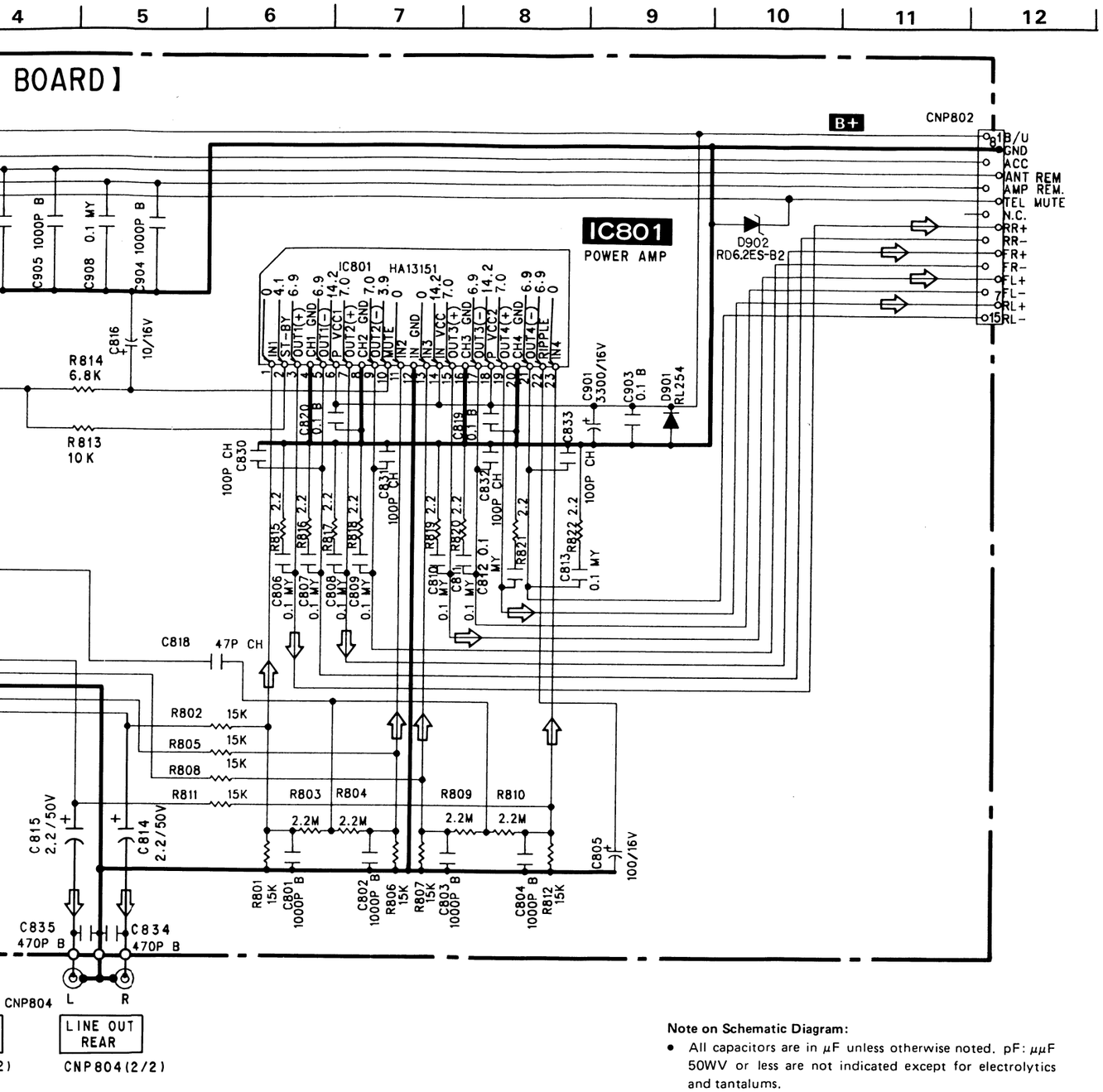
- ○—— : parts extracted from the component side.
- ● : Through hole.
- ■ : parts mounted on the conductor side.
- ▒ : Pattern on the side which is seen.

4-9. SCHEMATIC DIAGRAM—AMP SECTION—

【AMPLIFIER BOARD】



MC-Service

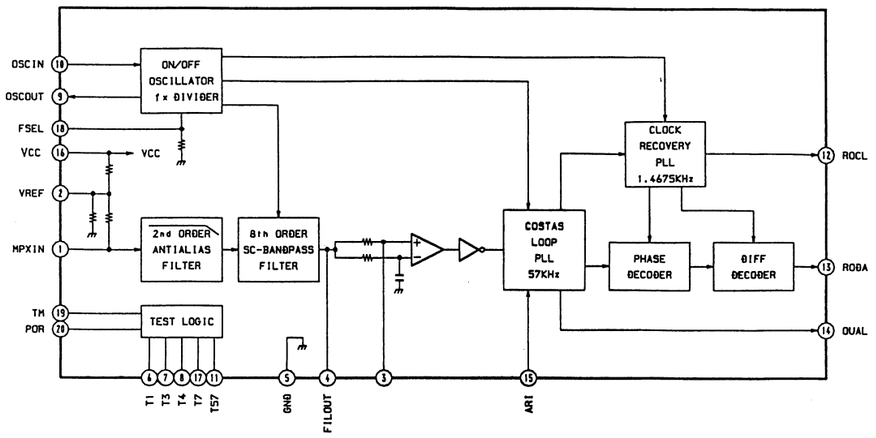


Note on Schematic Diagram:

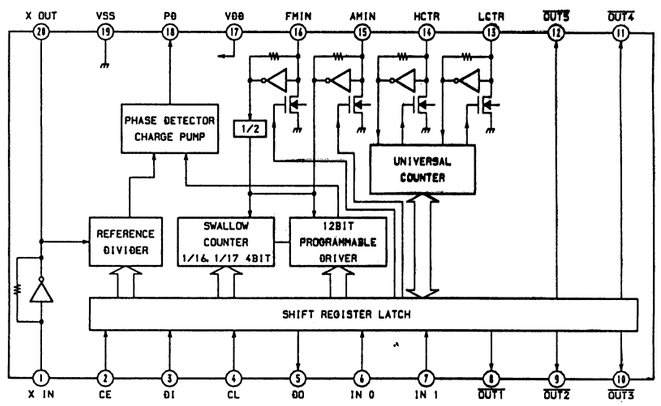
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Power voltage is dc 14.4V and fed with regulated dc power supply from BACK UP and ACC terminals.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

• IC Block Diagrams

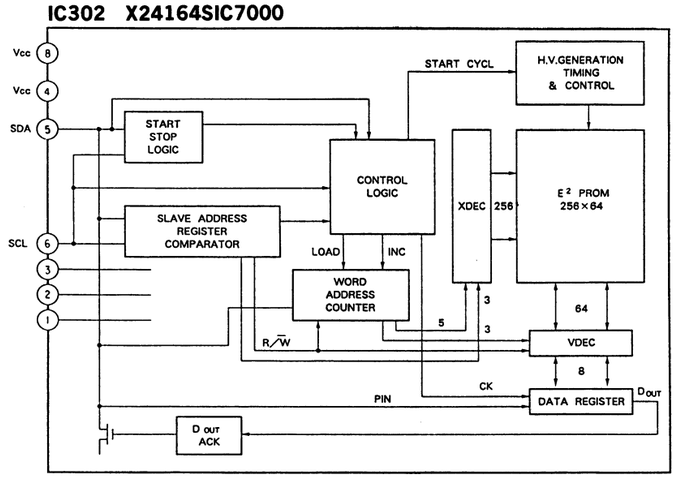
IC2 TDA7330BD



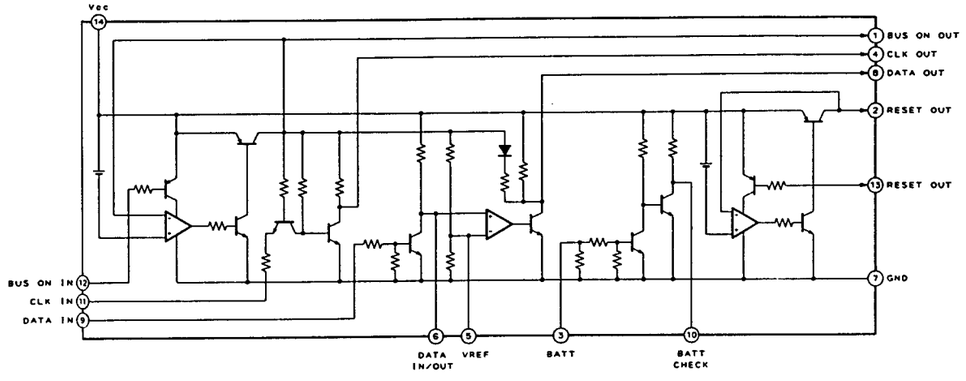
IC3 LC7216M



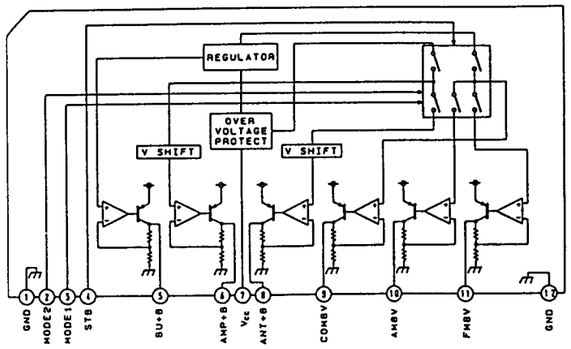
IC302 X24164SIC7000



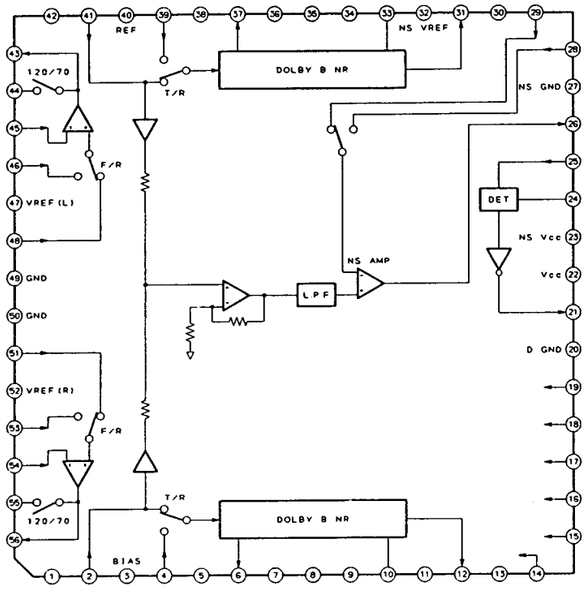
IC303 MM1175XFF



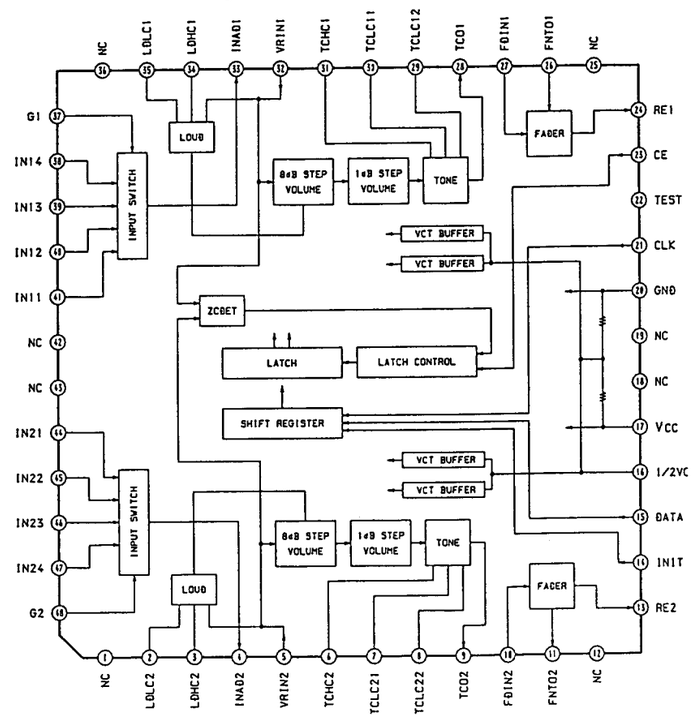
IC305 BA3910B



IC401 HA12164

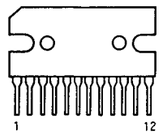


IC403 CXA1646Q

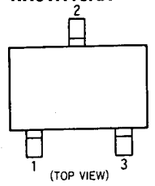


4-10. SEMICONDUCTOR LEAD LAYOUTS

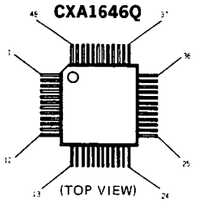
BA3910B-V2



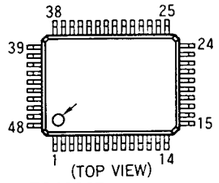
RH5VA40AA



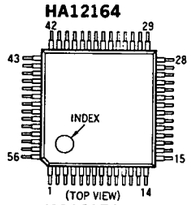
CXA1646Q



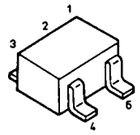
TA2027F



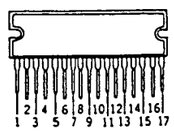
HA12164



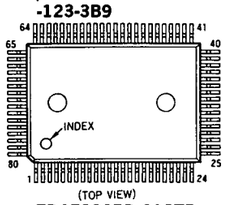
TC4S66F



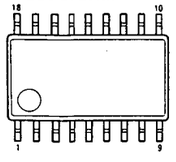
HA13151



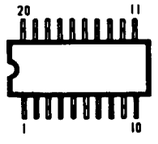
TC9240F
μPD75518GF
-123-3B9



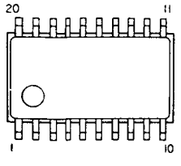
LC7071NM



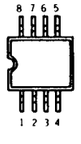
TDA7330BD-013TR



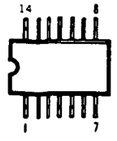
LC7216M



μPC4558G2
X24164SIC7000



MM1175XFF



DTA144EK
DTC314TKH04
DTD113EK
UN2111
UN2211
UN2212
UN2213
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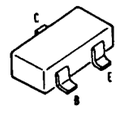
2SC2712-YG



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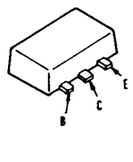
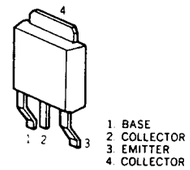
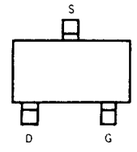
2SD1615A-GP



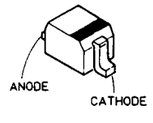
2SD1802-S



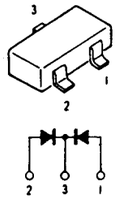
2SK536



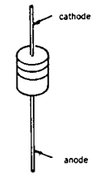
DTZ5.1C
MA110



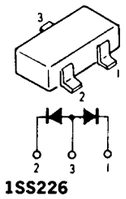
MA152WK



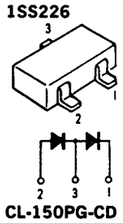
RD5.1ES-B2
RD5.6ES-B2
RD6.2ES-B2
RD8.2ES-B1
RD10ES-B1
RD11ES-B2
RL254-H21
1SS119
11ES2



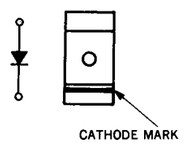
1S2836



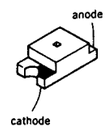
1SS226



CL-150PG-CD
CL-155Y/PG-CD



CL-150Y-CD

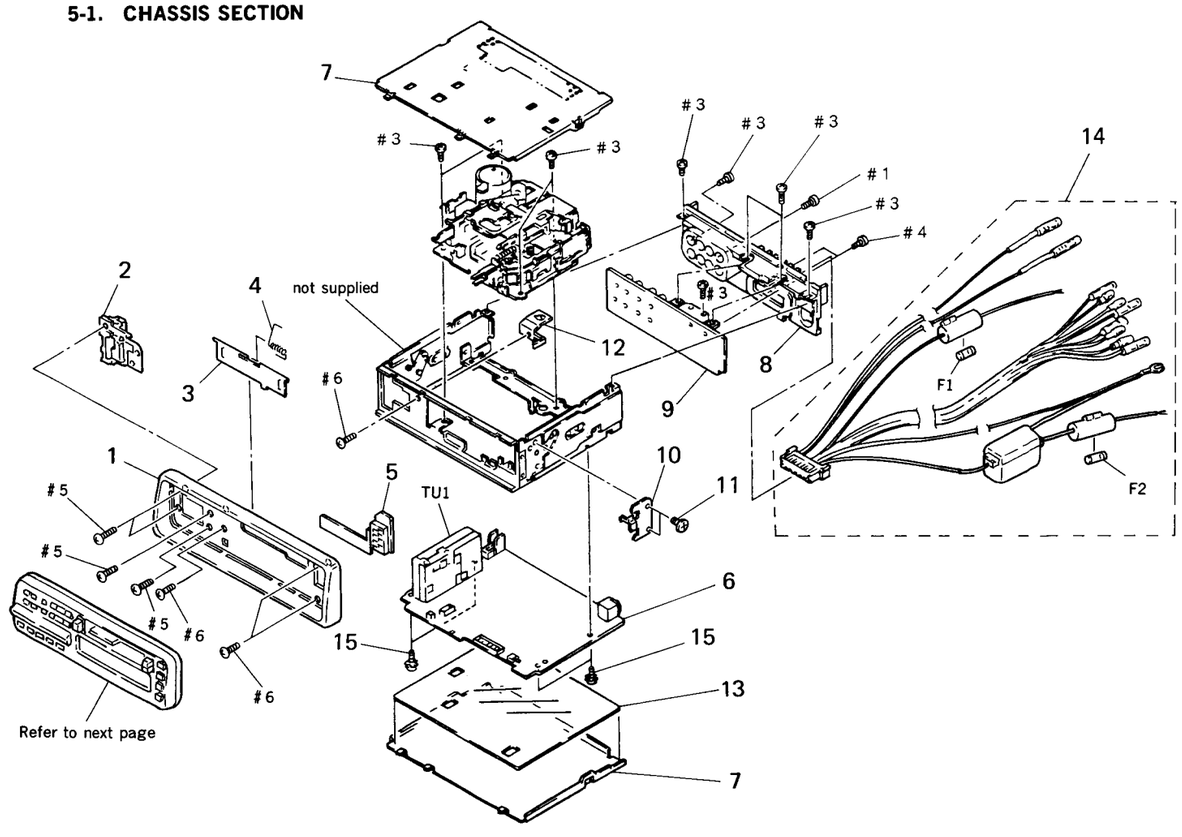


MC-Service

SECTION 5
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

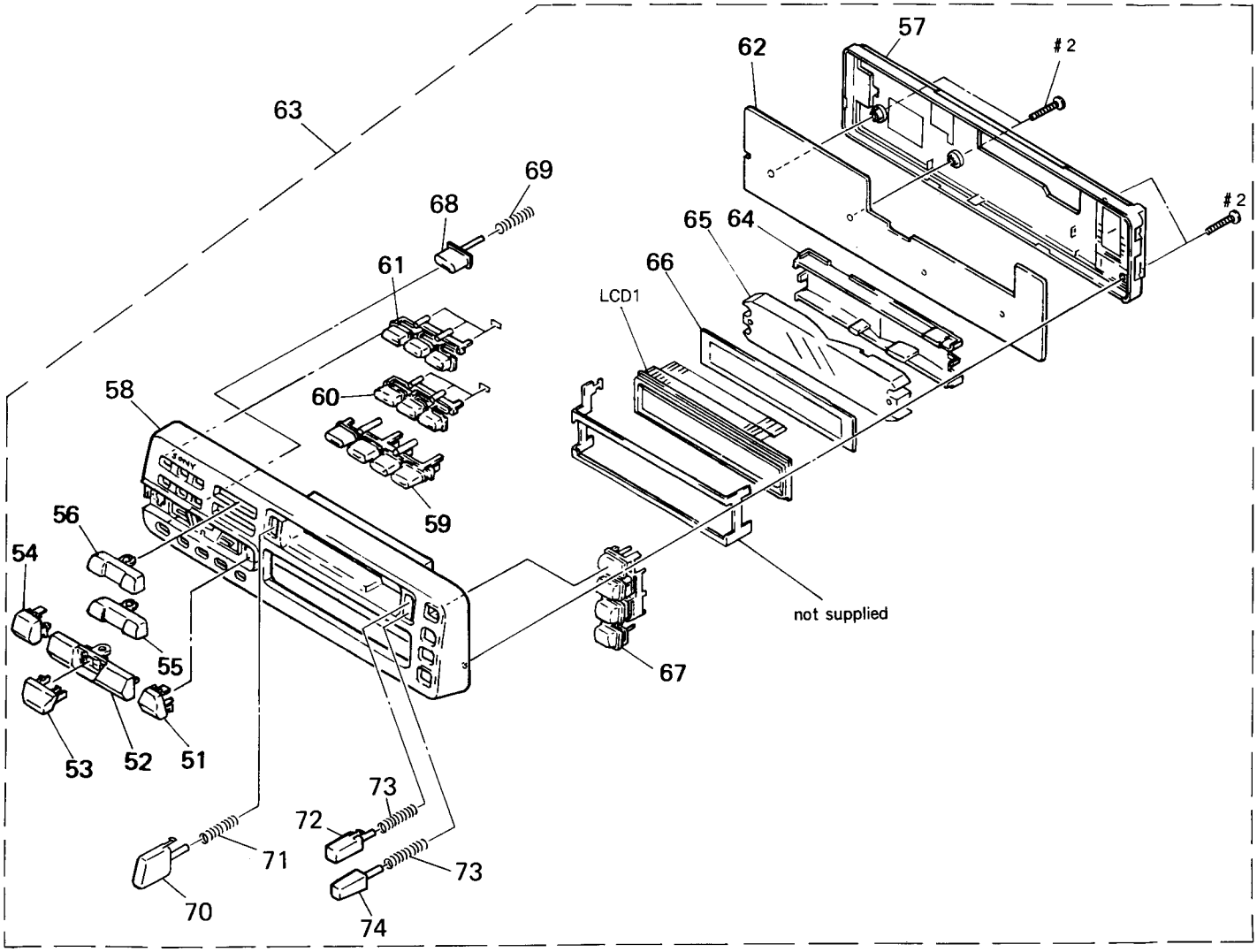
5-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-389-043-01	PANEL, SUB	
2	X-3366-913-1	LOCK ASSY	
3	3-904-879-01	DOOR, CASSETTE (U400RDS)	
3	3-904-879-11	DOOR, CASSETTE (U401RDS)	
3	3-904-879-21	DOOR, CASSETTE (U300RDS)	
3	3-904-879-31	DOOR, CASSETTE (U301RDS)	
4	3-377-892-01	SPRING (C DOOR), TORSION	
* 5	1-648-789-11	RESET BOARD	
* 6	A-3295-614-A	MAIN BOARD, COMPLETE (U400RDS:AEP)	
* 6	A-3295-705-A	MAIN BOARD, COMPLETE (U300RDS:GERMAN)	
* 6	A-3295-707-A	MAIN BOARD, COMPLETE (U301RDS)	
* 6	A-3295-709-A	MAIN BOARD, COMPLETE (U300RDS:AEP)	
* 6	A-3295-713-A	MAIN BOARD, COMPLETE (U400RDS:GERMAN)	
* 6	A-3295-715-A	MAIN BOARD, COMPLETE (U401RDS)	

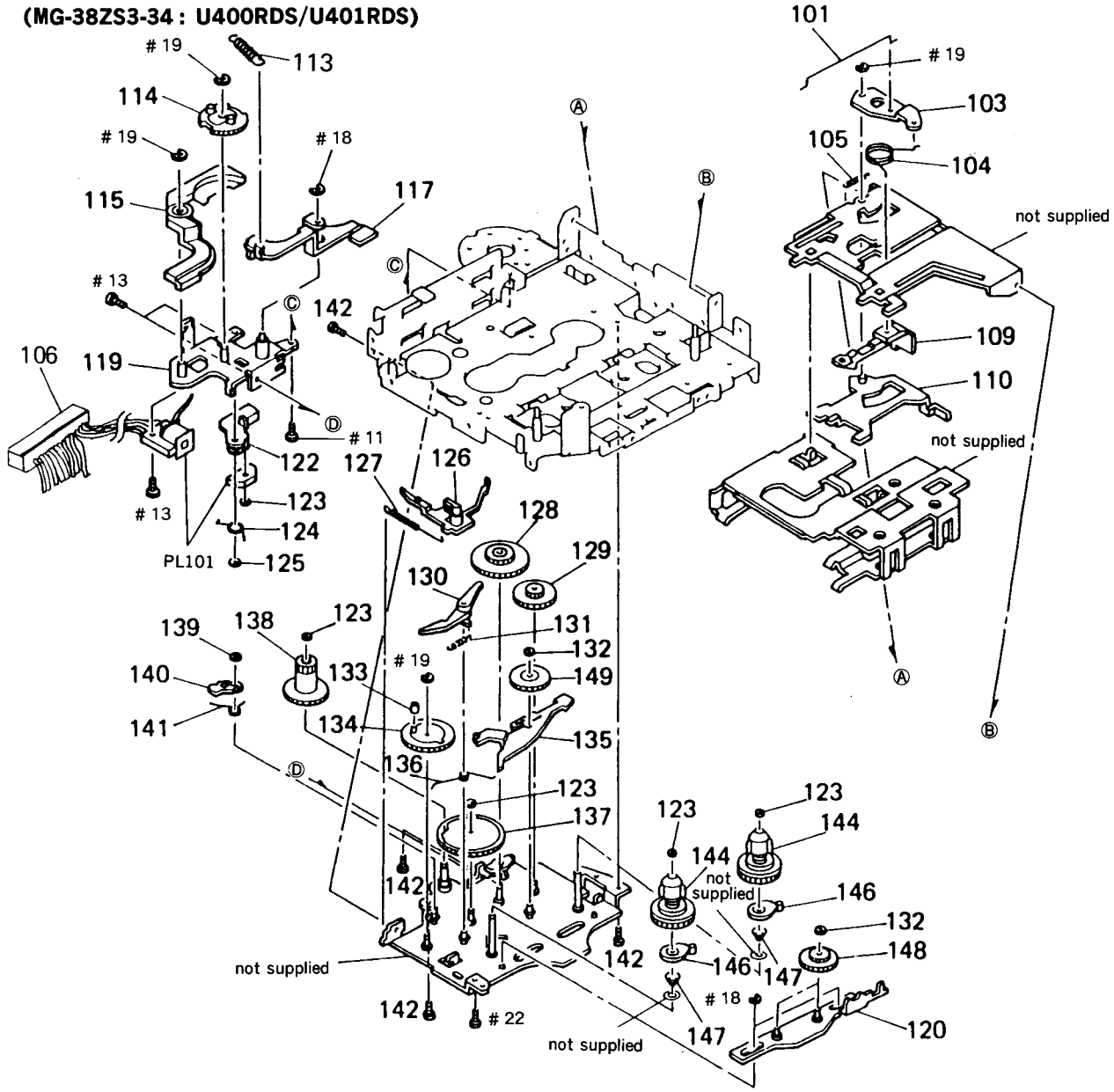
Ref. No.	Part No.	Description	Remark
* 7	3-377-591-01	COVER	
* 8	3-389-042-01	HEAT SINK	
* 9	A-3295-612-A	AMPLIFIER BOARD, COMPLETE	
* 10	3-387-688-01	PLATE (R), LOCK	
11	3-329-814-01	SCREW (M4X6), SPECIAL PAN (+)	
12	3-389-050-01	PLATE (F-S), GROUND	
* 13	3-904-940-01	INSULATOR (CHASSIS)	
14	1-751-036-11	CORD (WITH CONNECTOR) (POWER)	
15	3-376-464-11	SCREW (+PTT2.6X6), GROUND POINT	
F1	1-532-360-XX	FUSE, GLASS TUBE (1A)	
F2	1-532-678-XX	FUSE, GLASS TUBE (12A)	
TU1	1-693-000-21	TUNER UNIT (FM/AM) (U300RDS, U400RDS)	
TU1	1-693-001-11	TUNER UNIT (FM/MW/LW) (U300RDS, U401RDS)	

5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-389-019-01	BUTTON (SENS LOUD)	
52	3-389-018-01	BUTTON (- +)	
53	3-389-021-01	BUTTON (SEL)	
54	3-389-020-01	BUTTON (MUTE)	
55	3-389-025-01	BUTTON (MANU DISC)	
56	3-389-037-01	BUTTON (SEEK TRACK)	
57	3-389-044-01	PANEL, FRONT (BACK)	
58	3-389-041-01	PANEL, FRONT (U400RDS)	
58	3-389-041-11	PANEL, FRONT (U401RDS)	
58	3-389-041-21	PANEL, FRONT (U300RDS)	
58	3-389-041-31	PANEL, FRONT (U301RDS)	
59	3-389-248-01	BUTTON (4 GANG) (OFF, FILE, BTM, DSPL)	
60	3-389-026-01	BUTTON (4-6)	
61	3-389-023-01	BUTTON (1-3)	
* 62	A-3222-605-A	KEY BOARD, COMPLETE (U400RDS, U401RDS)	
* 62	A-3222-626-A	KEY BOARD, COMPLETE (U300RDS:AMBER, U301RDS)	
* 62	A-3222-641-A	KEY BOARD, COMPLETE (U300RDS:GREEN)	
* 63	A-3252-722-A	PANEL ASSY, FRONT (U400RDS)	
* 63	A-3252-772-A	PANEL ASSY, FRONT (U301RDS)	
* 63	A-3252-773-A	PANEL ASSY, FRONT (U300RDS:AMBER)	
* 63	A-3252-776-A	PANEL ASSY, FRONT (U401RDS)	
* 63	A-3252-791-A	PANEL ASSY, FRONT (U300RDS:GREEN)	
* 64	3-389-035-01	HOLDER (LCD)	
* 65	3-389-036-01	PLATE, LIGHT GUIDE	
* 66	3-389-033-01	REFLECTOR (SHEET)	
67	3-389-024-11	BUTTON (FM LW/MW, TAPE, AF/TA, CD) (U301RDS, U401RDS)	
67	3-389-024-21	BUTTON (FM/AM, TAPE, AF/TA, CD) (U300RDS, U400RDS)	
68	3-389-048-01	BUTTON (RELEASE)	
69	3-375-373-01	SPRING (RELEASE)	
70	3-389-047-01	BUTTON (EJECT)	
71	3-375-371-01	SPRING (EJECT)	
72	3-389-045-01	BUTTON (▶▶)	
73	3-375-372-01	SPRING (F/R)	
74	3-389-046-01	BUTTON (◀◀)	
LCD1	1-810-086-11	DISPLAY PANEL, LIQUID CRYSTAL	

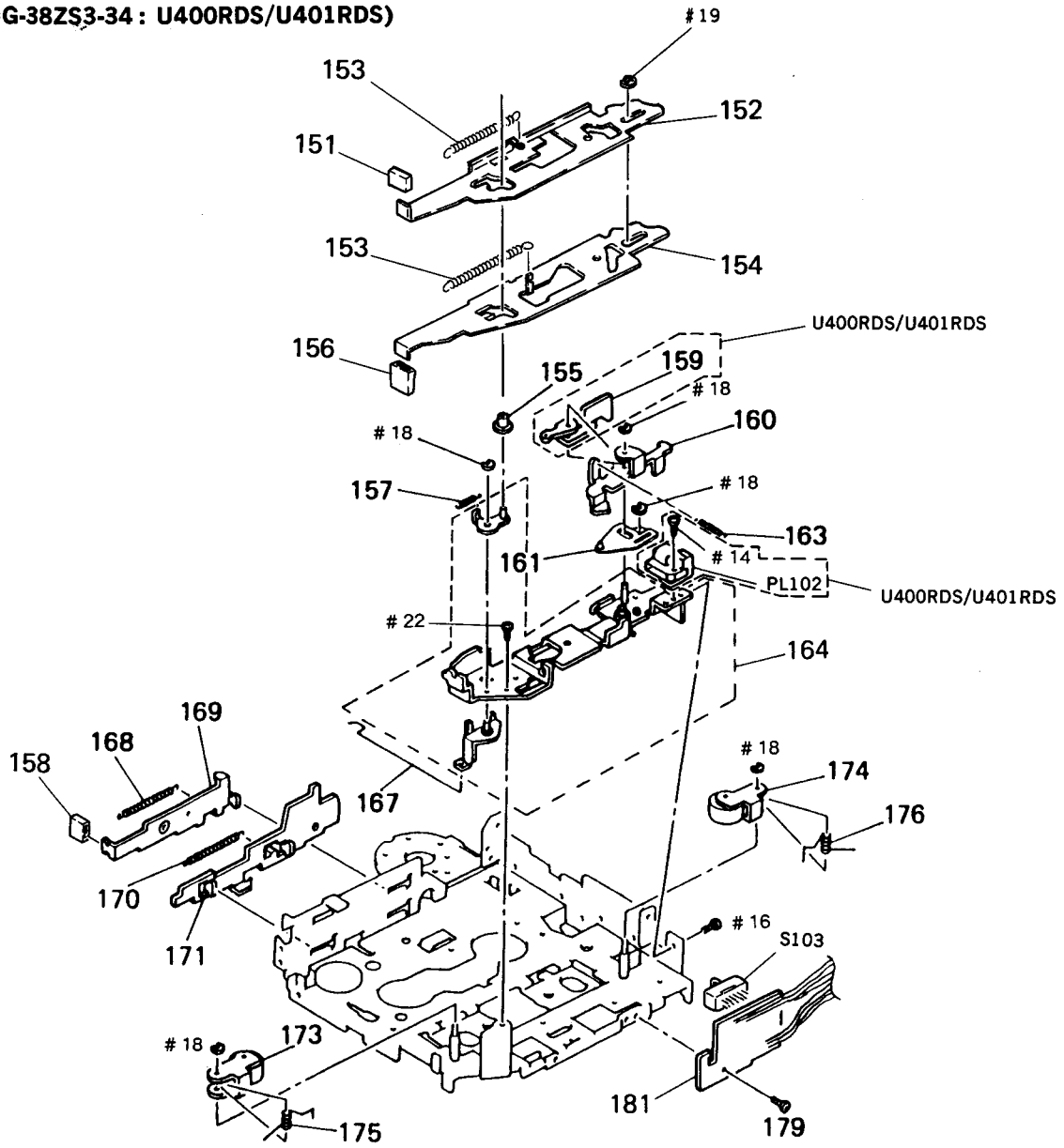
5-3. MECHANISM DECK SECTION 1
(MG-38ZS5-34 : U300RDS/U301RDS)
(MG-38ZS3-34 : U400RDS/U401RDS)



Ref. No.	Part No.	Description	Remark
101	3-392-969-01	LINK, RETURN	
* 103	3-392-932-01	PLATE, CENTER	
104	3-392-961-01	SPRING (B)	
105	3-392-953-01	SPRING	
106	3-387-914-01	CONNECTOR ASSY, 15P (U400RDS, U401RDS)	
106	3-388-604-01	CONNECTOR ASSY (B), 15P (U300RDS, U301RDS)	
109	3-392-972-01	HOOKER, TAPE	
* 110	3-392-921-01	LOCK ASSY, EJECT CAM	
113	3-397-436-01	SPRING, STAND-BY	
114	3-397-411-01	GEAR ASSY, STAND-BY	
115	3-397-462-01	ARM, REVERSE LOCK	
* 117	3-397-405-01	CAM ASSY, STAND-BY	
* 119	3-397-404-01	BRACKET ASSY, SOLENOID	
* 120	3-397-402-01	ARM (C) ASSY, F.R	
* 122	3-397-406-01	LOCK ASSY, STAND-BY GEAR	
123	3-676-387-00	POLY-SLIDER (DIA. 1.6)	
124	3-397-441-01	SPRING, STAND-BY GEAR LOCK	
125	3-570-615-00	POLY-WASHER (DIA. 1.2)	
126	3-397-460-01	RATCHET	
127	3-392-959-01	SPRING	
128	3-397-420-01	GEAR (B)	

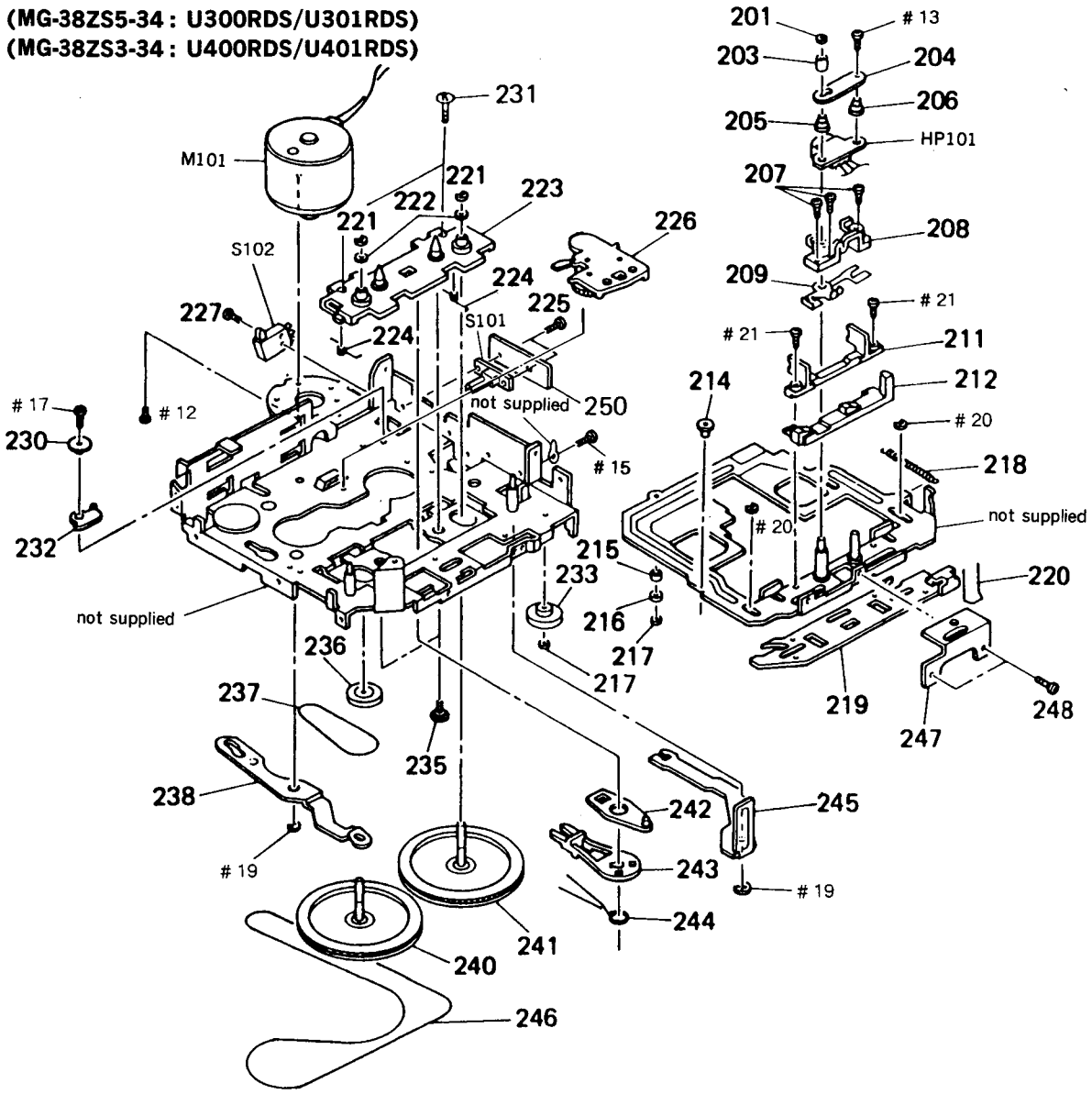
Ref. No.	Part No.	Description	Remark
129	3-397-419-01	GEAR (A)	
130	3-392-989-02	ARM, GEAR LOCK	
131	3-392-949-02	SPRING	
132	3-570-615-11	POLY-WASHER (DIA. 1.2)	
133	3-392-944-01	COLLAR (SELECTOR GEAR)	
134	3-392-987-01	GEAR, SELECTOR	
135	3-397-459-01	ARM, SENSOR	
136	3-397-429-01	SPRING, DASH	
137	3-397-458-01	GEAR, DETECTION	
138	3-397-426-01	GEAR, ROAD	
139	3-559-408-11	WASHER, POLYETHYLENE, DIA. 1.2	
140	3-397-425-01	GEAR, SELECTOR LOCK	
141	3-397-440-01	SPRING, SELECTOR GEAR LOCK	
* 142	4-908-792-11	SCREW (B2X3), TAPPING, P1	
144	3-397-409-01	SPINDLE ASSY, REEL	
146	3-370-617-01	CAM ASSY, DETECTION	
147	3-370-619-01	SPRING, BACK TENSION	
148	3-397-422-01	GEAR, F.R	
149	3-397-421-01	GEAR, IDLE	
PL101	1-454-517-11	SOLENOID, PLUNGER (KEY OFF)	

5-4. MECHANISM DECK SECTION 2
(MG-38ZS5-34 : U300RDS/U301RDS)
(MG-38ZS3-34 : U400RDS/U401RDS)



Ref. No.	Part No.	Description	Remark
* 151	3-379-141-01	BUTTON, FF	
* 152	3-379-125-01	LEVER (S), FF	
153	3-392-948-01	SPRING	
* 154	3-379-133-01	LEVER (S), REW	
155	3-392-994-01	ROLLER, PROGRAM	
* 156	3-379-139-01	BUTTON, REW	
157	3-397-439-01	SPRING, PROGRAM ARM	
* 158	3-379-140-01	BUTTON, EJECT	
159	3-392-903-01	ARM, RELEASE (U400RDS, U401RDS)	
* 160	3-392-904-01	ARM (A), LOCK	
* 161	3-397-415-01	ARM (A) ASSY, F.R	
163	3-392-917-01	SPRING	
* 164	3-372-241-02	BRACKET ASSY (F), LEVER	
167	3-372-243-01	LINK (B), SELECTOR	
168	3-397-437-01	SPRING, EJECT LEVER	
* 169	3-379-144-01	LEVER (S), EJECT	
170	3-397-438-01	SPRING, EJECT CAM	
* 171	3-397-417-01	CAM ASSY, EJECT	
173	3-375-378-01	ARM (R) ASSY, PINCH	
174	3-375-377-01	ARM (F) ASSY, PINCH	
175	3-392-958-01	SPRING (R)	
176	3-392-957-01	SPRING (F)	
* 179	4-908-792-11	SCREW (B2X3), TAPPING, P1	
* 181	3-397-444-01	SWITCH BOARD	
PL102	1-454-464-12	SOLENOID, PLUNGER (AMS) (U400RDS, U401RDS)	
S103	1-572-353-11	SWITCH, SLIDE (R/N)	

5-5. MECHANISM DECK SECTION 3
(MG-38ZS5-34 : U300RDS/U301RDS)
(MG-38ZS3-34 : U400RDS/U401RDS)



Ref. No.	Part No.	Description	Remark
201	3-676-387-00	POLY-SLIDER (DIA. 1.6)	
203	3-392-943-01	ROLLER, FF (U400RDS, U401RDS)	
203	3-392-998-01	ROLLER (A), FF (U300RDS, U301RDS)	
* 204	3-392-930-01	RETAINER, SPRING	
205	3-397-433-01	SPRING (B), ADJUSTOR ARM	
206	3-397-432-01	SPRING (A), ADJUSTOR ARM	
207	3-375-379-01	SCREW, AZIMUTH	
* 208	3-379-142-01	ARM (B), ADJUSTOR	
209	3-377-908-01	SHIM (X), ADJUSTOR	
211	3-392-984-02	GUIDE, TAPE	
212	3-377-909-02	LINK (X), ADJUSTOR	
214	3-397-428-01	COLLAR, H.P	
215	3-392-942-01	ROLLER (B), H.P	
216	3-392-945-01	ROLLER (A), H.P	
217	3-570-615-11	POLY-WASHER (DIA. 1.2)	
218	3-392-952-01	SPRING	
* 219	3-397-401-01	ARM (A) ASSY, FR SELECTION	
220	3-392-962-01	SPRING	
221	3-590-768-00	RING (A), E	
222	3-701-437-11	POLY-SLIDER (A)	
* 223	3-375-381-01	BRACKET ASSY (X), CM	
224	3-392-963-01	SPRING (R)	
225	3-318-204-91	SCREW (M1.7X4), TAPPING	
226	3-397-410-02	ARM ASSY, T.U	

Ref. No.	Part No.	Description	Remark
227	3-318-203-11	SCREW (B1.7X6), TAPPING	
* 230	3-397-427-01	COLLAR, MUTE ARM	
231	3-318-204-81	SCREW (M1.7X3), TAPPING	
232	3-372-244-01	ARM (N), MUTE	
233	3-392-941-01	PULLEY (A), IDLE	
235	3-392-918-01	SCREW, EJECT HOOK	
236	3-397-418-01	GEAR, PULLEY	
237	3-397-442-01	BELT, SUB	
* 238	3-392-979-01	LEVER, REVERSE	
240	3-381-496-01	FLYWHEEL ASSY (BR1)	
241	3-381-495-01	FLYWHEEL ASSY (BF1)	
* 242	3-397-408-01	ARM (D) ASSY, F.R	
243	3-397-461-01	ARM, FF	
244	3-397-435-01	SPRING, FF ARM	
* 245	3-397-455-01	ARM (B), F.R	
246	3-397-443-01	BELT, MAIN	
* 247	3-397-463-01	REINFORCEMENT	
248	3-397-464-01	SCREW, REINFORCEMENT FITTING	
250	3-375-376-01	MUTE (PWB)	
HP101	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
M101	X-3365-046-1	MOTOR (CAPSTAN/REEL)	
S101	1-692-065-11	SWITCH, LEAF (FF/REW)	
S102	1-554-790-21	SWITCH (PACK-IN)	

SECTION 6
ELECTRICAL PARTS LIST

AMPLIFIER **KEY**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3295-612-A	AMPLIFIER BOARD, COMPLETE			
		**********			
*	3-904-673-01	PLATE (HEAT SINK), GROUND			
	7-621-770-67	SCREW +BVTT 2.6X6 (S)			
		< CAPACITOR >			
C801-804					
	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-126-933-11	ELECT	100uF	20%	16V
C806-813					
	1-136-165-00	FILM	0.1uF	5%	50V
C814	1-124-257-00	ELECT	2.2uF	20%	50V
C815	1-124-257-00	ELECT	2.2uF	20%	50V
C816	1-126-157-11	ELECT	10uF	20%	16V
C818	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C819	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C820	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C830-833					
	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C834	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C835	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C901	1-128-268-11	ELECT	3300uF	20%	16V
C903	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C904	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C905	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C906	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C907	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C908	1-136-165-00	FILM	0.1uF	5%	50V
C909	1-136-165-00	FILM	0.1uF	5%	50V
		< CONNECTOR >			
* CNJ801	1-750-706-21	PLUG, CONNECTOR 10P			
* CNJ803	1-750-703-21	PLUG, CONNECTOR 8P			
* CNP802	1-695-244-21	PLUG, CONNECTOR 15P			
		< JACK >			
CNP804	1-691-683-31	JACK, PIN 4P (UNILINK IN AUDIO, LINE OUT REAR)			
		< DIODE >			
D901	8-719-038-09	DIODE RL254-H21			
D902	8-719-109-93	DIODE RD6.2ESB2			
		< IC >			
IC801	8-759-160-00	IC HA13151			
		< RESISTOR >			
R801	1-216-077-00	METAL CHIP	15K	5%	1/10W
R802	1-216-077-00	METAL CHIP	15K	5%	1/10W
R803	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R804	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R805-808					
	1-216-077-00	METAL CHIP	15K	5%	1/10W
R809	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R810	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R811	1-216-077-00	METAL CHIP	15K	5%	1/10W
R812	1-216-077-00	METAL CHIP	15K	5%	1/10W
R813	1-216-073-00	METAL CHIP	10K	5%	1/10W
R814	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R815-822					
	1-216-298-00	METAL CHIP	2.2	5%	1/10W
**********					
*	A-3222-605-A	KEY BOARD, COMPLETE (U400RDS, U401RDS)			
*	A-3222-626-A	KEY BOARD, COMPLETE (U300RDS:AMBER, U301RDS)			
*	A-3222-641-A	KEY BOARD, COMPLETE (U300RDS:GREEN)			
		**********			
*	3-389-033-01	REFLECTOR (SHEET)			
*	3-389-035-01	HOLDER (LCD)			
*	3-389-036-01	PLATE, LIGHT GUIDE			
*	3-389-039-01	PLATE (LCD), GROUND			
*	3-905-394-01	INSULATOR (LCD)			
		< CAPACITOR >			
C701	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C702	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C703	1-163-005-11	CERAMIC CHIP (AMBER)	470PF	10%	50V

KEY

Ref. No.	Part No.	Description	Remark
C703	1-164-005-11	CERAMIC CHIP 0.47uF (U300RDS:GREEN)	25V
		< CONNECTOR >	
* CNP701	1-691-557-21	PIN, CONNECTOR 12P	
		< DIODE >	
D701	8-719-404-46	DIODE MA110 (U400RDS, U401RDS)	
D702	8-719-977-00	DIODE DTZ5.1C	
D703	8-719-987-41	LED CL-150Y-CD (XR-U300RDS:FM/AM, XRU301RDS:FM MW/LW) (U300RDS:AMBER, U301RDS)	
D703	8-719-987-43	LED CL-150PG-CD (FM/AM) (U300RDS:GREEN)	
D703	8-719-987-45	LED CL-155Y/PG-CD (XR-U400RDS:FM/AM, XR-U401RDS:FM MW/LW)	
D704	8-719-987-41	LED CL-150Y-CD (TAPE) (U300RDS:AMBER, U301RDS)	
D704	8-719-987-43	LED CL-150PG-CD (TAPE) (U300RDS:GREEN)	
D704	8-719-987-45	LED CL155Y/PG-CD (TAPE) (U400RDS, U401RDS)	
D705	8-719-987-41	LED CL-150Y-CD (AF/TA) (U300RDS:AMBER, U301RDS)	
D705	8-719-987-43	LED CL-150PG-CD (AF/TA) (U300RDS:GREEN)	
D705	8-719-987-45	LED CL-155Y/PG-CD (AF/TA) (U400RDS, U401RDS)	
D706	8-719-987-41	LED CL-150Y-CD (CD) (U300RDS:AMBER, U301RDS)	
D706	8-719-987-43	LED CL-150PG-CD (CD) (U300RDS:GREEN)	
D706	8-719-987-45	LED CL-155Y/PG-CD (CD) (U400RDS, U401RDS)	
D707	8-719-987-41	LED CL-150Y-CD (SENS LOUD) (U300RDS:AMBER, U301RDS)	
D707	8-719-987-43	LED CL-150PG-CD (SENS LOUD) (U300RDS:GREEN)	
D707	8-719-987-45	LED CL-155Y/PG-CD (◻◻ SENS LOUD) (U400RDS, U401RDS)	
D708	8-719-987-41	LED CL-150Y-CD (MANU DISC +) (U300RDS:AMBER, U301RDS)	
D708	8-719-987-43	LED CL-150PG-CD (MANU DISC +) (U300RDS:GREEN)	
D708	8-719-987-45	LED CL-155Y/PG-CD (MANU DISC +) (U400RDS, U401RDS)	
D709	8-719-987-41	LED CL-150Y-CD (+ ⏭) (U300RDS:AMBER, U301RDS)	
D709	8-719-987-43	LED CL-150PG-CD (+ ⏭) (U300RDS:GREEN)	
D709	8-719-987-45	LED CL-155Y/PG-CD (+ ⏭) (U400RDS, U401RDS)	
D710	8-719-987-41	LED CL-150Y-CD (MUTE) (U300RDS:AMBER, U301RDS)	
D710	8-719-987-43	LED CL150PG-CD (MUTE) (U300RDS:GREEN)	
D710	8-719-987-45	LED CL-155Y/PG-CD (MUTE) (U400RDS, U401RDS)	
D711	8-719-987-41	LED CL-150Y-CD (SEL -) (U300RDS:AMBER, U301RDS)	
D711	8-719-987-43	LED CL-150PG-CD (SEL -) (U300RDS:GREEN)	
D711	8-719-987-45	LED CL155Y/PG-CD (SEL -) (U400RDS, U401RDS)	
D712	8-719-987-41	LED CL-150Y-CD (OFF) (U300RDS:AMBER, U301RDS)	
D712	8-719-987-43	LED CL-150PG-CD (OFF) (U300RDS:GREEN)	
D712	8-719-987-45	LED CL-155Y/PG-CD (OFF) (U400RDS, U401RDS)	
D713	8-719-987-41	LED CL-150Y-CD (MANU DISC -) (U300RDS:AMBER, U301RDS)	
D713	8-719-987-43	LED CL150PG-CD (MANU DISC -) (U300RDS:GREEN)	
D713	8-719-987-45	LED CL-155Y/PG-CD (MANU DISC -) (U400RDS, U401RDS)	
D714	8-719-987-41	LED CL-150Y-CD (- ⏮) (U300RDS:AMBER, U301RDS)	
D714	8-719-987-43	LED CL-150PG-CD (- ⏮) (U300RDS:GREEN)	
D714	8-719-987-45	LED CL-155Y/PG-CD (- ⏮) (U400RDS, U401RDS)	
D715	8-719-987-41	LED CL-150Y-CD (SEL +) (U300RDS:AMBER, U301RDS)	
D715	8-719-987-43	LED CL-150PG-CD (SEL +) (U300RDS:GREEN)	
D715	8-719-987-45	LED CL-155Y/PG-CD (SEL +) (U400RDS, U401RDS)	
D716	8-719-987-41	LED CL-150Y-CD (6) (U300RDS:AMBER, U301RDS)	
D716	8-719-987-43	LED CL-150PG-CD (6) (U300RDS:GREEN)	
D716	8-719-987-45	LED CL-155Y/PG-CD (AMS 6) (U400RDS, U401RDS)	
D717	8-719-987-41	LED CL-150Y-CD (SHUF 3) (U300RDS:AMBER, U301RDS)	
D717	8-719-987-43	LED CL-150PG-CD (SHUF 3) (U300RDS:GREEN)	
D717	8-719-987-45	LED CL-155Y/PG-CD (SHUF 3) (U400RDS, U401RDS)	
D718	8-719-987-41	LED CL-150Y-CD (BTM) (U300RDS:AMBER, U301RDS)	
D718	8-719-987-43	LED CL-150PG-CD (BTM) (U300RDS:GREEN)	

KEY

Ref. No.	Part No.	Description	Remark
D718	8-719-987-45	LED CL-155Y/PG-CD (BTM) (U400RDS, U401RDS)	
D719	8-719-987-41	LED CL-150Y-CD (5) (U300RDS:AMBER, U301RDS)	
D719	8-719-987-43	LED CL-150PG-CD (5) (U300RDS:GREEN)	
D719	8-719-987-45	LED CL-155Y/PG-CD (MTL 5) (U400RDS, U401RDS)	
D720	8-719-987-41	LED CL-150Y-CD (REPEAT 2) (U300RDS:AMBER, U301RDS)	
D720	8-719-987-43	LED CL-150PG-CD (REPEAT 2) (U300RDS:GREEN)	
D720	8-719-987-45	LED CL-155Y/PG-CD (REPEAT 2) (U400RDS, U401RDS)	
D721	8-719-987-41	LED CL-150Y-CD (DSPL) (U300RDS:AMBER, U301RDS)	
D721	8-719-987-43	LED CL-150PG-CD (DSPL) (U300RDS:GREEN)	
D721	8-719-987-45	LED CL-155Y/PG-CD (DSPL) (U400RDS, U401RDS)	
D722	8-719-987-41	LED CL-150Y-CD (BANK 4) (U300RDS:AMBER, U301RDS)	
D722	8-719-987-43	LED CL-150PG-CD (BANK 4) (U300RDS:GREEN)	
D722	8-719-987-45	LED CL-155Y/PG-CD (BANK 4) (U400RDS, U401RDS)	
D723	8-719-987-41	LED CL-150Y-CD (INTRO 1) (U300RDS:AMBER, U301RDS)	
D723	8-719-987-43	LED CL-150PG-CD (INTRO 1) (U300RDS:GREEN)	
D723	8-719-987-45	LED CL-155Y/PG-CD (INTRO 1) (U400RDS, U401RDS)	
D725	8-719-987-41	LED CL-150Y-CD (SEL) (U300RDS:AMBER, U301RDS)	
D725	8-719-987-43	LED CL-150PG-CD (SEL) (U300RDS:GREEN)	
D725	8-719-987-45	LED CL-155Y/PG-CD (SEL) (U400RDS, U401RDS)	
D726	8-719-987-41	LED CL-150Y-CD (FILE) (U300RDS:AMBER, U301RDS)	
D726	8-719-987-43	LED CL-150PG-CD (FILE) (U300RDS:GREEN)	
D726	8-719-987-45	LED CL-155Y/PG-CD (FILE) (U400RDS, U401RDS)	
		< IC >	
IC701	8-759-246-16	IC TC9240F	
		< LIQUID CRYSTAL DISPLAY >	
LCD1	1-810-086-11	DISPLAY PANEL, LIQUID CRYSTAL	

Ref. No.	Part No.	Description	Remark
		< PILOT LAMP >	
PL701	1-517-165-21	LAMP, PILOT (AMBER)	
PL701	1-517-166-21	LAMP, PILOT (GREEN)	
PL702	1-517-165-21	LAMP, PILOT (AMBER)	
PL702	1-517-166-21	LAMP, PILOT (GREEN)	
PL703	1-517-166-21	LAMP, PILOT (GREEN)	(U400RDS, U401RDS)
PL704	1-517-166-21	LAMP, PILOT (GREEN)	(U400RDS, U401RDS)
		< TRANSISTOR >	
Q701	8-729-904-66	TRANSISTOR DTD113EK (U400RDS, U401RDS)	
Q702	8-729-904-66	TRANSISTOR DTD113EK (U400RDS, U401RDS)	
Q703	8-729-904-66	TRANSISTOR DTD113EK (U400RDS, U401RDS)	
Q704	8-729-904-66	TRANSISTOR DTD113EK (U400RDS, U401RDS)	
		< RESISTOR >	
R701	1-216-049-00	METAL CHIP 1K 5% 1/10W (U400RDS, U401RDS)	
R702	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R703	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R704	1-216-033-00	METAL CHIP 220 5% 1/10W	
R705	1-216-033-00	METAL CHIP 220 5% 1/10W	
R706-710	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R711	1-216-041-00	METAL CHIP 470 5% 1/10W	
R712	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R713	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R714-716	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R717	1-216-049-00	METAL CHIP 1K 5% 1/10W (U400RDS, U401RDS)	
R718	1-216-049-00	METAL CHIP 1K 5% 1/10W (U400RDS, U401RDS)	
R719	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R720	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R721	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R722	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R723	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R724	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R725	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R726	1-216-660-11	METAL CHIP 2.4K 0.5% 1/10W	
R727	1-216-661-11	METAL CHIP 2.7K 0.5% 1/10W	
R728	1-216-665-11	METAL CHIP 3.9K 0.5% 1/10W	
R729	1-216-669-11	METAL CHIP 5.6K 0.5% 1/10W	
R730	1-216-673-11	METAL CHIP 8.2K 0.5% 1/10W	
R731	1-216-647-11	METAL CHIP 680 0.5% 1/10W	

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KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R732	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R733	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R734	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R735	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R736	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R737	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R738	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W
R739	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R740	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R741	1-216-186-00	METAL GLAZE	330	5%	1/8W
R742	1-216-048-00	METAL CHIP	910	5%	1/10W
R743	1-216-048-00	METAL CHIP	910	5%	1/10W
		< SWITCH >			
S701	1-692-037-31	SWITCH, KEY BOARD (U300RDS/U400RDS: FM/AM, U301RDS/U401RDS:FM MW/LW)			
S702	1-692-037-31	SWITCH, KEY BOARD (AF/TA)			
S703	1-692-037-31	SWITCH, KEY BOARD (SEL +)			
S704	1-692-037-31	SWITCH, KEY BOARD (SEL)			
S705	1-692-037-31	SWITCH, KEY BOARD (SEEK TRACK + ⏭)			
S706	1-692-037-31	SWITCH, KEY BOARD (SEEK TRACK - ⏮)			
S707	1-692-037-31	SWITCH, KEY BOARD (MANU DISC +)			
S708	1-692-037-31	SWITCH, KEY BOARD (MANU DISC -)			
S709	1-692-037-31	SWITCH, KEY BOARD (MUTE)			
S710	1-692-037-31	SWITCH, KEY BOARD (U300RDS/U301RDS: SENS LOUD, U400RDS/ U401RDS: □□ SENS LOUD)			
S711	1-692-037-31	SWITCH, KEY BOARD (BTM)			
S712	1-692-037-31	SWITCH, KEY BOARD (FILE)			
S713	1-692-037-31	SWITCH, KEY BOARD (OFF)			
S714	1-692-037-31	SWITCH, KEY BOARD (TAPE)			
S715	1-692-037-31	SWITCH, KEY BOARD (CD)			
S716	1-692-037-31	SWITCH, KEY BOARD (SEL -)			
S717	1-692-037-31	SWITCH, KEY BOARD (DSPL)			
S718	1-692-037-31	SWITCH, KEY BOARD (INTRO 1)			
S719	1-692-037-31	SWITCH, KEY BOARD (REPEAT 2)			
S720	1-692-037-31	SWITCH, KEY BOARD (SHUF 3)			
S721	1-692-037-31	SWITCH, KEY BOARD (BANK 4)			
S722	1-692-037-31	SWITCH, KEY BOARD (U300RDS/U301RDS:5, U400RDS/U401RDS:MTL 5)			
S723	1-692-037-31	SWITCH, KEY BOARD (U300RDS/U301RDS:6, U400RDS/U401RDS:AMS 6)			

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Ref. No.	Part No.	Description			Remark
*	A-3295-614-A	MAIN BOARD, COMPLETE (U400RDS:AEP)			
*	A-3295-705-A	MAIN BOARD, COMPLETE (U300RDS:GERMAN)			
*	A-3295-707-A	MAIN BOARD, COMPLETE (U301RDS)			
*	A-3295-709-A	MAIN BOARD, COMPLETE (U300RDS:AEP)			
*	A-3295-713-A	MAIN BOARD, COMPLETE (U400RDS:GERMAN)			
*	A-3295-715-A	MAIN BOARD, COMPLETE (U401RDS)			
		**********			
		< JACK >			
* ANT1	1-750-619-11	JACK (ANTENNA)			
		< CAPACITOR >			
C2	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3	1-136-157-00	FILM	0.022uF	5%	50V
C4	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C5	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C6	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C7	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8-10	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C11	1-126-154-11	ELECT	47uF	20%	6.3V
C12	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C13	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C14	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C15	1-126-157-11	ELECT	10uF	20%	16V
C16	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C17	1-126-288-11	ELECT	4.7uF	20%	16V
C18	1-126-301-11	ELECT	1uF	20%	50V
C19	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C20	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C21	1-126-301-11	ELECT	1uF	20%	50V
C22	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C23	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C24	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C25	1-104-940-71	ELECT	10uF	20%	25V
C26	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C27	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C28	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C29	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C30	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C31	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C32	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C33	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C34	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C35	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C36	1-126-301-11	ELECT	1uF	20%	50V
C37	1-124-584-00	ELECT	100uF	20%	10V
C38	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C39	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V

Ref. No.	Part No.	Description			Remark
C40	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C41	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C42	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C43	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C44	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C45	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C46	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C47	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C48	1-126-923-11	ELECT	220uF	20%	10V
C49	1-136-163-00	FILM	0.068uF	5%	50V
C50	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C51	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C52-55					
	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C56	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C57	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C58	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C59	1-126-157-11	ELECT	10uF	20%	16V
C60	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C61	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C62	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C63	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C64	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C65	1-126-154-11	ELECT	47uF	20%	6.3V
C68	1-124-229-00	ELECT	33uF	20%	10V
C72	1-136-169-00	FILM	0.22uF	5%	50V
C74	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C75	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C76	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C77	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C78	1-126-923-11	ELECT	220uF	20%	10V
C79	1-124-229-00	ELECT	33uF	20%	10V
C80	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C81	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C82	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C101	1-136-356-11	MYLAR	470PF	5%	50V
C102	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C103	1-136-155-00	FILM	0.015uF	5%	50V
C104	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C105	1-126-301-11	ELECT	1uF	20%	50V
C106	1-126-301-11	ELECT	1uF	20%	50V
C107	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C108	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C109	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C110	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112-114					
	1-126-157-11	ELECT	10uF	20%	16V
C115	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C151	1-126-301-11	ELECT	1uF	20%	50V
C201	1-136-356-11	MYLAR	470PF	5%	50V
C202	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C203	1-136-155-00	FILM	0.015uF	5%	50V
C204	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C205	1-126-301-11	ELECT	1uF	20%	50V
C206	1-126-301-11	ELECT	1uF	20%	50V
C207	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C208	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C209	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C210	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C211	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C212-214					
	1-126-157-11	ELECT	10uF	20%	16V
C215	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C251	1-126-301-11	ELECT	1uF	20%	50V
C301	1-126-155-11	ELECT	100uF	20%	6.3V
C302	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C303	1-128-078-11	ELECT	33uF	20%	10V
C304	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C305	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C306	1-126-157-11	ELECT	10uF	20%	16V
C307	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C308	1-125-701-11	CAP, DOUBLE LAYER			0.047F
C309	1-162-638-11	CERAMIC CHIP	1uF		16V
C310	1-128-078-11	ELECT	33uF	20%	10V
C311	1-124-229-00	ELECT	33uF	20%	10V
C312	1-124-229-00	ELECT	33uF	20%	10V
C313	1-104-940-71	ELECT	10uF	20%	25V
C314	1-104-939-71	ELECT	47uF	20%	16V
C316	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C317	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C318	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C322	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C323	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C324	1-124-584-00	ELECT	100uF	20%	10V
C325	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C329	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C330	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C331	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C332	1-162-638-11	CERAMIC CHIP	1uF		16V
C333	1-162-638-11	CERAMIC CHIP	1uF		16V
C334	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C345	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C346	1-124-584-00	ELECT	100uF	20%	10V
C401	1-126-301-11	ELECT	1uF	20%	50V
C402	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C403	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

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Ref. No.	Part No.	Description			Remark
C404	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
		(U400RDS, U401RDS)			
C405	1-164-232-11	CERAMIC CHIP	0.01uF		50V
		(U400RDS, U401RDS)			
C406	1-124-252-00	ELECT	0.33uF	20%	50V
C407	1-124-584-00	ELECT	100uF	20%	10V
C408	1-126-157-11	ELECT	10uF	20%	16V
		(U400RDS, U401RDS)			
C409	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C410	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C411	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C412	1-126-288-11	ELECT	4.7uF	20%	16V
C413	1-124-229-00	ELECT	33uF	20%	10V
C414	1-124-234-00	ELECT	22uF	20%	16V
C415	1-126-154-11	ELECT	47uF	20%	6.3V
C416	1-126-154-11	ELECT	47uF	20%	6.3V
C417	1-124-234-00	ELECT	22uF	20%	16V
C418	1-126-301-11	ELECT	1uF	20%	50V
C419	1-126-301-11	ELECT	1uF	20%	50V
		(U400RDS, U401RDS)			
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< FILTER >			
CF1	1-579-568-11	FILTER, CERAMIC (10.7MHz)			
CF2	1-579-568-11	FILTER, CERAMIC (10.7MHz)			
		< CONNECTOR >			
* CNP401	1-506-997-11	PIN, CONNECTOR (PC BOARD) 15P			
CNP501	1-580-907-11	PLUG, CONNECTOR (UNILINK IN CONTROL)			
* CNP701	1-750-852-11	SOCKET, CONNECTOR 13P			
* CNP801	1-750-705-21	SOCKET, CONNECTOR 10P			
* CNP803	1-750-702-21	SOCKET, CONNECTOR 8P			
		< DIODE >			
D1	8-719-911-19	DIODE	1SS119		
D2	8-719-911-19	DIODE	1SS119		
D3	8-719-109-85	DIODE	RD5.1ES-B2		
D4	8-719-911-19	DIODE	1SS119		
D5	8-719-800-76	DIODE	1SS226		
D6	8-719-911-19	DIODE	1SS119		
D7	8-719-110-16	DIODE	RD10ES-B1		
D301	8-719-109-89	DIODE	RD5.6ES-B2		
D302	8-719-110-22	DIODE	RD11ES-B2		
D303	8-719-110-22	DIODE	RD11ES-B2		
D304	8-719-110-06	DIODE	RD8.2ES-B1		
D305	8-719-400-18	DIODE	MA152WK		
D307	8-719-104-34	DIODE	1S2836		

Ref. No.	Part No.	Description		Remark
D310	8-719-109-93	DIODE	RD6.2ES-B2	
D311	8-719-109-93	DIODE	RD6.2ES-B2	
D312	8-719-109-93	DIODE	RD6.2ES-B2	
D313	8-719-109-93	DIODE	RD6.2ES-B2	
D314	8-719-109-93	DIODE	RD6.2ES-B2	
D315	8-719-109-93	DIODE	RD6.2ES-B2	
D316	8-719-109-93	DIODE	RD6.2ES-B2	
D317	8-719-104-34	DIODE	1S2836	
D318	8-719-109-93	DIODE	RD6.2ES-B2	
D401	8-719-200-82	DIODE	11ES2 (U400RDS, U401RDS)	
D402	8-719-200-82	DIODE	11ES2	
D403	8-719-400-18	DIODE	MA152WK	
D405	8-719-400-18	DIODE	MA152WK	
D406	8-719-400-18	DIODE	MA152WK	
D501	8-719-109-93	DIODE	RD6.2ES-B2	
D502	8-719-109-93	DIODE	RD6.2ES-B2	
D503	8-719-109-93	DIODE	RD6.2ES-B2	
D504	8-719-109-93	DIODE	RD6.2ES-B2	
		< IC >		
IC1	8-759-090-30	IC	TA2027F	
IC2	8-759-163-63	IC	TDA7330BD-013TR	
IC3	8-759-823-81	IC	LC7216M	
IC4	8-759-823-84	IC	LC7071NM	
IC6	8-759-234-77	IC	TC4S66F	
IC301	8-759-181-82	IC	uPD75518GF-123-3B9	
IC302	8-759-165-37	IC	X24164SIC7000	
IC303	8-759-096-16	IC	MM1175XFF	
IC304	8-759-097-36	IC	RH5VA40AA	
IC305	8-759-182-75	IC	BA3910B-V2	
IC401	8-759-161-01	IC	HA12164	
IC403	8-752-063-44	IC	CXA1646Q	
IC404	8-759-100-96	IC	uPC4558G2	
IC405	8-759-100-96	IC	uPC4558G2	
IC407	8-759-100-96	IC	uPC4558G2	
		< JUMPER RESISTOR >		
JR1	1-216-295-00	METAL CHIP	0 5% 1/10W	
JR2	1-216-295-00	METAL CHIP	0 5% 1/10W	
JR3	1-216-295-00	METAL CHIP	0 5% 1/10W	
		(U300RDS, U400RDS)		
JR4-6	1-216-295-00	METAL CHIP	0 5% 1/10W	
		< COIL >		
L1	1-410-513-11	INDUCTOR	22uH	
L4	1-410-509-11	INDUCTOR	10uH	
L5	1-410-509-11	INDUCTOR	10uH	
L6	1-410-501-11	INDUCTOR	2.2uH	
L7	1-410-171-11	INDUCTOR	1mH	

Ref. No.	Part No.	Description		Remark
L8	1-410-509-11	INDUCTOR	10uH	
L9	1-410-509-11	INDUCTOR	10uH	
L301	1-410-509-11	INDUCTOR	10uH	
		< TRANSISTOR >		
Q1	8-729-421-22	TRANSISTOR	UN2211	
Q2	8-729-230-49	TRANSISTOR	2SC2712-YG	
Q3	8-729-230-49	TRANSISTOR	2SC2712-YG	
Q4	8-729-809-71	TRANSISTOR	2SK536	
Q5	8-729-901-06	TRANSISTOR	DTA144EK (U301RDS, U401RDS)	
Q6	8-729-424-08	TRANSISTOR	UN2111	
Q7	8-729-424-08	TRANSISTOR	UN2111	
Q9	8-729-421-22	TRANSISTOR	UN2211	
Q10	8-729-424-08	TRANSISTOR	UN2111	
Q11	8-729-230-49	TRANSISTOR	2SC2712-YG	
Q101	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR	DTC314TKH04	
Q301	8-729-106-68	TRANSISTOR	2SD1615A-GP	
Q302	8-729-807-12	TRANSISTOR	2SD1802-S	
Q303	8-729-424-08	TRANSISTOR	UN2111	
Q304	8-729-421-22	TRANSISTOR	UN2211	
Q305	8-729-807-12	TRANSISTOR	2SD1802-S	
Q306	8-729-424-08	TRANSISTOR	UN2111	
Q307	8-729-421-22	TRANSISTOR	UN2211	
Q308	8-729-230-49	TRANSISTOR	2SC2712-YG	
Q310	8-729-424-59	TRANSISTOR	UN2212	
Q311	8-729-424-08	TRANSISTOR	UN2111	
Q312	8-729-421-22	TRANSISTOR	UN2211	
Q313	8-729-421-22	TRANSISTOR	UN2211	
Q316	8-729-216-22	TRANSISTOR	2SA1162-G	
Q317	8-729-421-19	TRANSISTOR	UN2213	
Q318	8-729-216-22	TRANSISTOR	2SA1162-G	
Q320	8-729-424-08	TRANSISTOR	UN2111 (U400RDS, U401RDS)	
Q321	8-729-421-22	TRANSISTOR	UN2211 (U400RDS, U401RDS)	
Q401	8-729-920-21	TRANSISTOR	DTC314TKH04 (U400RDS, U401RDS)	
Q402	8-729-106-68	TRANSISTOR	2SD1615A-GP (U400RDS, U401RDS)	
Q403	8-729-106-60	TRANSISTOR	2SB1115A-YQ	
Q404	8-729-421-22	TRANSISTOR	UN2211	
Q405	8-729-421-22	TRANSISTOR	UN2211 (U400RDS, U401RDS)	
Q407	8-729-216-22	TRANSISTOR	2SA1162-G	
Q408	8-729-424-08	TRANSISTOR	UN2111	
		< RESISTOR >		
R1	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	

Ref. No.	Part No.	Description				Remark
R2	1-216-041-00	METAL CHIP	470	5%	1/10W	
R3	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R4	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R5	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R6	1-216-039-00	METAL CHIP	390	5%	1/10W	
R7	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R8	1-216-039-00	METAL CHIP	390	5%	1/10W	
R9	1-216-039-00	METAL CHIP	390	5%	1/10W	
R10	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R11	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R12	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R13	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R14	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R15-18	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R19	1-216-033-00	METAL CHIP	220	5%	1/10W	
R20	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R21	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R22	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R23	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R24	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R25	1-216-046-00	METAL CHIP	750	5%	1/10W	
R26	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R27	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R28	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R29	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R30	1-216-017-00	METAL CHIP	47	5%	1/10W	
R31	1-216-039-00	METAL CHIP	390	5%	1/10W	
R32	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R33	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R34	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R37	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R38	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R39	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R41	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R42	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R43	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R44	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R45	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R46	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R48	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R49	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R50	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R51	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R52	1-216-039-00	METAL CHIP	390	5%	1/10W	
R53	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R55	1-216-089-00	METAL CHIP (U301RDS, U401RDS)	47K	5%	1/10W	
R56	1-249-393-11	CARBON	10	5%	1/4W	

MC-Service

MAIN

Ref. No.	Part No.	Description			Remark
R59	1-216-089-00	METAL CHIP	47K	5%	1/10W
R60	1-216-075-00	METAL CHIP	12K	5%	1/10W
R61	1-216-073-00	METAL CHIP	10K	5%	1/10W
R63	1-216-049-00	METAL CHIP	1K	5%	1/10W
R101	1-216-089-00	METAL CHIP	47K	5%	1/10W
R102	1-216-075-00	METAL CHIP	12K	5%	1/10W
R103	1-216-079-00	METAL CHIP	18K	5%	1/10W
R104	1-216-109-00	METAL CHIP	330K	5%	1/10W
R105	1-216-077-00	METAL CHIP	15K	5%	1/10W
R107	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R108-110					
	1-216-089-00	METAL CHIP	47K	5%	1/10W
R111	1-216-113-00	METAL CHIP	470K	5%	1/10W
R112	1-216-073-00	METAL CHIP	10K	5%	1/10W
R113	1-216-083-00	METAL CHIP	27K	5%	1/10W
R114	1-216-049-00	METAL CHIP	1K	5%	1/10W
R115	1-216-049-00	METAL CHIP	1K	5%	1/10W
R118	1-216-081-00	METAL CHIP	22K	5%	1/10W
R120	1-216-081-00	METAL CHIP	22K	5%	1/10W
R121	1-216-034-00	METAL CHIP (U300RDS, U301RDS)	240	5%	1/10W
R151	1-216-078-00	METAL GLAZE (AEP, UK, FRENCH)	16K	5%	1/10W
R151	1-216-074-00	METAL CHIP (GERMAN)	11K	5%	1/10W
R152	1-216-074-00	METAL CHIP	11K	5%	1/10W
R153	1-216-081-00	METAL CHIP	22K	5%	1/10W
R154	1-216-081-00	METAL CHIP	22K	5%	1/10W
R201	1-216-089-00	METAL CHIP	47K	5%	1/10W
R202	1-216-075-00	METAL CHIP	12K	5%	1/10W
R203	1-216-079-00	METAL CHIP	18K	5%	1/10W
R204	1-216-109-00	METAL CHIP	330K	5%	1/10W
R205	1-216-077-00	METAL CHIP	15K	5%	1/10W
R207	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R208-210					
	1-216-089-00	METAL CHIP	47K	5%	1/10W
R211	1-216-113-00	METAL CHIP	470K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-083-00	METAL CHIP	27K	5%	1/10W
R214	1-216-049-00	METAL CHIP	1K	5%	1/10W
R215	1-216-049-00	METAL CHIP	1K	5%	1/10W
R218	1-216-081-00	METAL CHIP	22K	5%	1/10W
R220	1-216-081-00	METAL CHIP	22K	5%	1/10W
R221	1-216-034-00	METAL CHIP (U300RDS, U301RDS)	240	5%	1/10W
R251	1-216-078-00	METAL GLAZE (AEP, UK, FRENCH)	16K	5%	1/10W
R251	1-216-074-00	METAL CHIP (GERMAN)	11K	5%	1/10W
R252	1-216-074-00	METAL CHIP	11K	5%	1/10W
R253	1-216-081-00	METAL CHIP	22K	5%	1/10W
R254	1-216-081-00	METAL CHIP	22K	5%	1/10W
R301	1-216-041-00	METAL CHIP	470	5%	1/10W
R302	1-216-049-00	METAL CHIP	1K	5%	1/10W
R303	1-216-049-00	METAL CHIP	1K	5%	1/10W
R308	1-216-097-00	METAL CHIP	100K	5%	1/10W
R309	1-216-081-00	METAL CHIP	22K	5%	1/10W
R312	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R313	1-216-073-00	METAL CHIP	10K	5%	1/10W
R319	1-216-089-00	METAL CHIP	47K	5%	1/10W
R320-324					
	1-216-049-00	METAL CHIP	1K	5%	1/10W
R325	1-216-097-00	METAL CHIP	100K	5%	1/10W
R326	1-216-089-00	METAL CHIP	47K	5%	1/10W
R327	1-216-097-00	METAL CHIP	100K	5%	1/10W
R328	1-216-109-00	METAL CHIP	330K	5%	1/10W
R329	1-216-097-00	METAL CHIP (U400RDS, U401RDS)	100K	5%	1/10W
R330-332					
	1-216-097-00	METAL CHIP	100K	5%	1/10W
R333	1-216-049-00	METAL CHIP (U400RDS, U401RDS)	1K	5%	1/10W
R334-338					
	1-216-049-00	METAL CHIP	1K	5%	1/10W
R339	1-216-049-00	METAL CHIP (U400RDS, U401RDS)	1K	5%	1/10W
R340	1-216-089-00	METAL CHIP (U400RDS, U401RDS)	47K	5%	1/10W
R341	1-216-089-00	METAL CHIP	47K	5%	1/10W
R342	1-216-073-00	METAL CHIP	10K	5%	1/10W
R343	1-216-073-00	METAL CHIP	10K	5%	1/10W
R344	1-216-025-00	METAL CHIP	100	5%	1/10W
R345	1-216-025-00	METAL CHIP	100	5%	1/10W
R346	1-216-097-00	METAL CHIP (U301RDS, U401RDS)	100K	5%	1/10W
R347	1-216-097-00	METAL CHIP (U301RDS, U401RDS)	100K	5%	1/10W
R348	1-216-097-00	METAL CHIP (U300RDS, U400RDS)	100K	5%	1/10W
R349	1-216-097-00	METAL CHIP (U300RDS, U400RDS)	100K	5%	1/10W
R350	1-216-049-00	METAL CHIP	1K	5%	1/10W
R351	1-216-049-00	METAL CHIP	1K	5%	1/10W
R353	1-216-073-00	METAL CHIP	10K	5%	1/10W
R355	1-216-089-00	METAL CHIP	47K	5%	1/10W
R356	1-216-089-00	METAL CHIP	47K	5%	1/10W
R357	1-216-049-00	METAL CHIP	1K	5%	1/10W
R358	1-216-089-00	METAL CHIP	47K	5%	1/10W
R359	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R360	1-216-073-00	METAL CHIP	10K	5%	1/10W
R361	1-216-105-00	METAL CHIP	220K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R362	1-216-089-00	METAL CHIP	47K	5%	1/10W
		(U300RDS, U301RDS)			
R363	1-216-097-00	METAL CHIP	100K	5%	1/10W
		(U300RDS, U301RDS)			
R364	1-216-097-00	METAL CHIP	100K	5%	1/10W
		(U400RDS, U401RDS)			
R365	1-216-089-00	METAL CHIP	47K	5%	1/10W
R401	1-216-079-00	METAL CHIP	18K	5%	1/10W
R402	1-216-085-00	METAL CHIP	33K	5%	1/10W
		(U400RDS, U401RDS)			
R403	1-216-295-00	METAL CHIP	0	5%	1/10W
		(U300RDS, U301RDS)			
R403	1-216-095-00	METAL CHIP	82K	5%	1/10W
		(U400RDS, U401RDS)			
R404	1-216-079-00	METAL CHIP	18K	5%	1/10W
		(U400RDS, U401RDS)			
R405	1-216-109-00	METAL CHIP	330K	5%	1/10W
		(U400RDS, U401RDS)			
R406	1-216-109-00	METAL CHIP	330K	5%	1/10W
R407	1-216-049-00	METAL CHIP	1K	5%	1/10W
		(U400RDS, U401RDS)			
R408	1-216-049-00	METAL CHIP	1K	5%	1/10W
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W
		(U400RDS, U401RDS)			
R410	1-216-073-00	METAL CHIP	10K	5%	1/10W
		(U400RDS, U401RDS)			
R411	1-216-150-00	METAL GLAZE	10	5%	1/8W
R412	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R413	1-216-081-00	METAL CHIP	22K	5%	1/10W
		(U400RDS, U401RDS)			
R414	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R415	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-073-00	METAL CHIP	10K	5%	1/10W
R419	1-216-166-00	METAL GLAZE	47	5%	1/8W
R420	1-216-041-00	METAL CHIP	470	5%	1/10W
R421	1-216-089-00	METAL CHIP	47K	5%	1/10W
R422	1-216-089-00	METAL CHIP	47K	5%	1/10W
R423	1-216-105-00	METAL CHIP	220K	5%	1/10W
R424	1-216-079-00	METAL CHIP	18K	5%	1/10W
R425	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R426	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R427	1-216-077-00	METAL CHIP	15K	5%	1/10W
		(U400RDS, U401RDS)			
R428	1-216-081-00	METAL CHIP	22K	5%	1/10W
R501	1-216-174-00	METAL GLAZE	100	5%	1/8W
R502	1-216-174-00	METAL GLAZE	100	5%	1/8W
R503	1-216-222-00	METAL GLAZE	10K	5%	1/8W
		< VARIABLE RESISTOR >			
RV1	1-238-600-11	RES, ADJ, CARBON 10K			
RV2	1-238-600-11	RES, ADJ, CARBON 10K			
RV3	1-238-605-31	RES, ADJ, CARBON 470K			
RV101	1-238-596-11	RES, ADJ, CARBON 470 (U400RDS, U401RDS)			
RV201	1-238-596-11	RES, ADJ, CARBON 470 (U400RDS, U401RDS)			
		< SWITCH >			
S301	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
		< TRANSFORMER >			
T1	1-404-955-11	TRANSFORMER, IF			
		< THERMISTOR >			
TH1	1-810-032-21	THERMISTOR NTH5G29A221K01TE			
		< TUNER >			
TU1	1-693-000-21	TUNER UNIT (FM/AM) (U300RDS, U400RDS)			
TU1	1-693-001-11	TUNER UNIT (FM/MW/LW) (U301RDS, U401RDS)			
		< VIBRATOR >			
X1	1-579-278-11	VIBLATOR, CERAMIC (456kHz)			
X2	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)			
X3	1-579-242-41	VIBRATOR, CRYSTAL (4.332MHz)			
X4	1-567-819-11	VIBRATOR, CERAMIC (4MHz)			
X301	1-567-776-21	VIBRATOR, CERAMIC (6MHz)			
X302	1-579-886-21	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
*	1-648-789-11	RESET BOARD			
		**********			
		< CONNECTOR >			
* CNP702	1-750-853-11	PIN, CONNECTOR 13P			
* CNP703	1-691-558-11	SOCKET, CONNECTOR 12P			
		< SWITCH >			
SW302	1-570-909-11	SWITCH, TACTIL (REFLOW TYPE) (RESET)			
SW303	1-692-366-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
14	1-751-036-11	CORD (WITH CONNECTOR) (POWER)	
F1	1-532-360-XX	FUSE, GLASS TUBE (1A)	
F2	1-532-678-XX	FUSE, GLASS TUBE (12A)	
HP101	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
M101	X-3365-046-1	MOTOR (CAPSTAN/REEL)	
PL101	1-454-517-11	SOLENOID, PLUNGER (KEY OFF)	
PL102	1-454-464-12	SOLENOID, PLUNGER (AMS) (U400RDS, U401RDS)	
S101	1-692-065-11	SWITCH, LEAF (FF/REW)	
S102	1-554-790-21	SWITCH (PACK-IN)	
S103	1-572-353-11	SWITCH, SLIDE (R/N)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	X-3364-977-1	CASE ASSY	
	3-756-908-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH)	
	3-756-908-41	MANUAL, INSTRUCTION (SPANISH, SWEDISH, PORTUGUESE) (AEP, UK, FRENCH)	
	3-756-909-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH)	
	3-756-909-41	MANUAL, INSTRUCTION, INSTALL (SPANISH, SWEDISH, PORTUGUESE) (AEP, UK, FRENCH)	
*	3-905-874-01	INDIVIDUAL CARTON (U300RDS)	
*	3-905-876-01	INDIVIDUAL CARTON (U301RDS)	
*	3-905-944-01	INDIVIDUAL CARTON (U400RDS)	
*	3-905-946-01	INDIVIDUAL CARTON (U401RDS)	
*	3-906-075-01	CUSHION (UPPER)	
*	3-906-076-01	CUSHION (LOWER)	
**********			

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#2	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	
#3	7-621-770-67	SCREW (+PTT 2.6X8), GROUND POINT	
#4	7-621-770-XX	SCREW +PTT 2.6X8 (S)	
#5	7-621-772-10	SCREW +B 2X4	
#6	7-621-775-40	SCREW +PTT 2.6X8 (S)	
#11	7-621-255-10	SCREW +P 2X3	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-621-255-20	SCREW +P 2X4	
#14	7-621-255-40	SCREW +P 2X6 (U400RDS, U401RDS)	
#15	7-621-775-08	SCREW +P 2.6X3	
#16	7-621-555-10	SCREW +K 2X3	
#17	7-621-591-00	SCREW +K 2X4	
#18	7-624-102-04	STOP RING 1.5, TYPE-E	
#19	7-624-104-04	STOP RING 2.0, TYPE-E	
#20	7-624-118-01	RING, RETAINING E-2.5	
#21	7-627-553-88	SCREW, PRECISION +P 2X7	
#22	7-621-255-25	SCREW +PTT 2X4 (S)	

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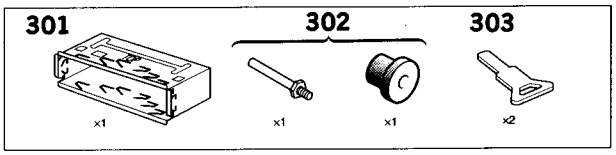
MOUNTING HARDWARE



Ref. No.	Part No.	Description	Remark
* 301	X-3366-235-3	FRAME ASSY, FITTING	
302	X-3366-405-1	SCREW ASSY (EXP), FITTING	
* 303	3-379-363-01	KEY	

MC-Service

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